Fauna of Raj Bhavan

TAMIL NADU

K. Vivekanandan

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Surjit Singh Barnala

GOVERNOR

FOREWORD

I am extremely happy to know that a book on Fauna of Raj Bhavan is being brought out to exhibit the richness of fauna as part of biodiversity of the estate. It is yet another unique attempt in the history of Raj Bhavan to enumerate the variety of fauna in the estate and I am sure that the inventory will create awareness among the stakeholders to help them to take conservation measures.

I appreciate the efforts taken by the author Shri. K. Vivekanandan, my Deputy Secretary in bringing out this book on Fauna of Raj Bhavan. I also thank Dr. K. Venkatraman, Additional Director of Zoological Survey of India for conducting faunal survey and identifying the available species. I also recognize the field level support rendered by the Zoological Department students of Loyola College, Chennai and the Forest Department in the survey.

This book will form a basis to estimate the richness of fauna of Raj Bhavan and create bench mark of biodiversity for future survey and to take measures to protect the habitation for the species. I extend my best wishes to Zoological Survey of India, Tamil Nadu Forest Department and author for their dedication in bringing out this directory of Fauna of Raj Bhavan at Chennai and Udhagamandalam.

SURJIT SINGH BARNALA

Raj Bhavan, Chennai - 600 022, Tamil Nadu, Phone . 22351313, Fax . 22350570

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I wish to place on record my deep sense of gratitude for the encouraging message of His Excellency. I also acknowledge the support extended by the Secretary to Governor on bringing out this compilation. The support received from the Tamil Nadu Veterinary and Animal Sciences University in bringing out the publication is gratefully acknowledged.

I sincerely thank Dr. Venkataraman, Director, Zoological Survey of India, Chennai and his team members, Dr. K. Rema Devi, Dr. K. Ilango, Dr. C. Venkataraman, Dr. Rajkumar Rajan, Dr. S. Prabhakaran, Dr. R. Aengels, Mr. D. Paranthaman, Mr. V. Sivasamy, Mr. G. Karunakaran, Mr. C. Poominathan and Mr. S. Sreenivasu, for meticulously planning a field survey and its execution. Special thanks are due to Dr. Kailash Chandra, Scientist F and Officer in charge, ZSI, Jabalpur for his support in the identification and providing excellent photographs of insects. I am also indebted to Dr. Venkataraman and his team for identifying and enlisting the fauna available in Raj Bhavan and the surrounding Guindy National Park, providing the species descriptions and also the valuable additional data for this publication.

I also thank Mr. S. Gopi, Mr. N. Prashanth, Mr. Pratheesh Mathew and Mr. S. Killivalavan who are students of II Year M.Sc. from Loyola College for their excellent field work both at Chennai and Udhagai Raj Bhavan Estate. The services of Mr. P. Babu, Forest Department is also appreciated for his excellent photographs on field.

My thanks are also due to Mr. R. Udhayakumar, Proprietor, Golden Impressions, Chennai – 17 for designing the layout and completing the printing work in time.

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MESSAGE

Our Raj Bhavans as well as the Rashtrapati Bhavan in Delhi are endowed with rich biodiversity. The Chennai Raj Bhavan is one of the biggest Raj Bhavans in India with vast green cover. It is rich in flora and fauna and is the home of a variety of deer, birds, reptiles and insects. The famous poet Joyce Kilmore wrote

"I think that I shall never see
A poem as lovely as a tree
A tree whose hungry mouth is prest
Against the earth's sweet flowing breast
A tree that looks at God all day
And lifts her leafy arms to pray
Poems are made by fools like me
But only God can make a tree"

Lord Buddha once said, '*The plant is the only living organism in the world which is capable of unilateral love. Wonderfully, the tree in the forest provides shade even to the axe man who comes to cut it! And this unilateral love is the one which has been advocated in our ancient philosophy*'. It is also the philosophy of Governor Surjit Singh Barnala.

I am glad that the Fauna of Chennai Raj Bhavan has been chronicled in this beautiful book. We are indebted to Thiru Shambhu Kallolikar for his initiative and the author Thiru K Vivekanandan for his labour of love for the beauty and bounty of nature. This book is a wonderful tribute to H E Shri Surjit Singh Barnala, who himself is a great artist and whose life symbolizes a combination of dignity and divinity.

M S Swaminathan

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I am delighted to note that a hand book on the Fauna of Raj Bhavan is being brought out enlisting the diversity, which forms base-line information to draw plan of action for the preservation and management of bio-diversity in the estate. Undoubtedly Bio diversity of Raj Bhavan estates at Chennai and Udhagamandalam manifest the floral and faunal diversity of the State. I appreciate the author for having brought out this pictorial guide. It is really a challenging task and I am happy to note that the faunal diversity of the estate has been brought out in a record time of 6 months.

I am sure this compendium will be an interesting reference material for the fraternity group which gives a fair insight into the rich biodiversity of our State and the country to impress upon its strength and to demonstrate the need for preservation to facilitate the future generation to cherish the beauty of nature and to sustain with it.

SHAMBHU KALLOLIKAR

Tamil Nadu Veterinary and Animal Sciences University

Dr. R. PRABAKARAN
VICE-CHANCELLOR

Madhavaram Milk Colony
Chennai - 600 051

Date : 29-12-2010

MESSAGE

India is rich in biodiversity of flora and fauna and is one of the 17 mega diverse countries in the world.

Tamil Nadu also has rich biodiversity and the role of faunal elements in the natural ecosystem is vital and the State has varied species origin covering mammals, birds, invertebrates, amphibians, insects and aqua creatures, etc. The habitants of species in Raj Bhavan estate manifest the strength of biodiversity of the State.

I am happy to get associated with the Raj Bhavan, Tamil Nadu in the assignment of documenting the fauna of the estate which has a very ancient historic background and that the book has been compiled during the international year of biodiversity.

I am sure the compilation will be of high academic interest besides forming a baseline data for the conservation of the estate in its pristine form.

Place : Chennai – 51
Date : 29 -12 - 2010

(R. PRABAKARAN)
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Message

It has been a great occasion to work with the office of Raj Bhavan, the official residence of His Excellency The Governor of Tamil Nadu on whose direction the inventory of faunal diversity was taken up and delighted to get associated with Thiru K. Vivekanandan, who in spite of being a non biologist, has shown incredible commitment in bringing out this compendium.

I also thank the experts of Zoological Survey of India, Drs. K. Rema Devi, K. Ilango, C. Venkataraman, R. Rajan, S. Prabhakaran, R. Aengels, who have been sharing their knowledge in the identification of fauna and the supporting officers Mr. D. Paranthaman, V. Sivasamy, G. Karnuakaran, C. Poominathan, and S. Shrenivaasu for meticulously executing the field survey of Raj Bhavan. Special thanks are due to Dr. Kailash Chandra, Scientist F and Officer in charge, ZSI, Jabalpur for his support in the identification of insects and providing excellent photographs of insects.

Chennai city is known for its rich terrestrial and marine biodiversity. Raj Bhavan is situated in the periphery of Guindy National Park which has been endowed with tropical dry evergreen forests - one of the rare ecosystems/habitats in India. Raj Bhavan is gifted with myriad of amazing fauna and flora. This inventory is prepared with a onetime survey and it gives a lot of scope for further volumes on the fauna. I am sure this book will portray the richness of biodiversity we possess and enable the younger generations of Chennai to conserve them for the future.

Dr. K. Venkataraman

K. Venkataraman

Director, ZSI

PREFACE

His Excellency Shri Surjit Singh Barnala, Governor of Tamil Nadu is the inspirational source for the realization of this volume. Being a lover of nature, His Excellency has given valuable guidance to me particularly on the subject of biodiversity.

Faunal elements play major role in the natural ecosystem. The total number of animal species in India is 89450, of which insects alone account for 59353 species. Mammals account for 375 species varieties, birds account for 1230 species varieties, reptiles account for 428 species varieties, amphibians account for 300 species varieties and mollusca account for 500 species varieties. The State of Tamil Nadu represents 76 species of amphibians, 177 reptiles, 454 species of birds, 187 species of mammals and 165 species of freshwater fishes. Raj Bhavan, situated in the periphery of Guindy National Park is one of the green zones in Chennai, which manifest the State's biodiversity. This publication is the result of survey and inventory of fauna, which will serve as a baseline data for monitoring and conservation of biodiversity of Raj Bhavan.

Iam happy to author this book on Fauna of Raj Bhavan particularly in the International year of Bio-diversity.

Though it was a herculean task in capturing the fauna in picture, it was made possible by the team work. It was also enlightening to discuss with my team mates, Scientists from Zoological Survey of India and Faculty and Students of Zoology Department, Loyola College. I am happy to get associated with them as a team for contributing to biodiversity documentation.

Place : Chennai -22
Date : 01.01.2011

K. VIVEKANANDAN

AUTHOR

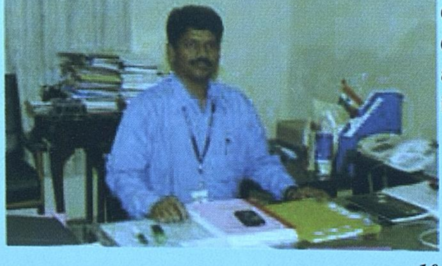
The author serves His Excellency the Governor of Tamil Nadu Shri Surjit Singh Barnala in the capacity as Deputy Secretary to Governor. He has promoted biodiversity of the Raj Bhavan estate through various measures which includes setting up of vermi composting unit for effective solid waste management and production of bio manure, Installation of sprinkler and drip irrigation to conserve the water consumption rate and to reduce water stress.

Replacement of CFL lamps with LED lamps to promote energy saving and thereby reduction of carbon emission, Creation of love birds paradise with varied collection of love birds, Health check up and feeding of mineral mixture to deer, Eradication of dogs in the estate to protect deer, Developing of stand alone green fodder resource for deer and other cattle in the estate, Conduct of tree census and the gap filling of 1000 tree saplings were promoted to create go green awareness in Raj Bhavan. The author has also promoted Herbal garden and a Garden of endangered species in the name of Sri Surjit Singh Barnala.

The Herbal garden is created with species namely adathoda, aloe vera, tulsi, henna, medicinal coleus, karpooravalli, stevia, eclipta, nagamalli, chekurmanis, kesavarthini, seenthil kodi, thuthuvalai, lippa, cissus, nochi, vettiver, neer notchi, periwinkle, blepharis, venkodiveli, nirmullai, alternanthera, nagatanti, manjal karisalai, psylium, siriyanangai, masipathri, costus and zimmuand.

The Garden of endangered species was planted with species of endangered nature of shrub varieties namely nardostachys grandoflora (spikenard), andrographis paniculata (kalmegh), kaemferia galanga (aromatic ginger), piper nigrum (black pepper), nervilia aragoana (one leaf orchid), adhatoda beddomei (Malabar nut), acorus calamus (sweet flag), amorphophallus paeonifolius (elephant yam), woodfordia fruticosa (fire-flame bush), piper nigurm (Bush pepper), rauwolfia serpentine (Indian snakeroot), symplocus racemosus (symplocos bark), piper cubeba (Java pepper), holostemma annulare (holostemma creeper), tinospora sinensis (Chinese tinospora), adenia hondala (vidari), curculigo orchioides (black musale), pseudarthria viscida (salaparni), trichopus zeylanicus (arogya pachai) and hedychium coronarium (butterfly lily) and further varieties are also being added.

The author also has conducted survey for solar energy harvesting in the Raj Bhavan Estate and prepared detailed project report for installation of solar lights and power panel and solar water heaters in Raj Bhavan Estate by getting funds from Special Area Demonstrative Programe (SLDP) in the Ministry of Renewable Energy, New Delhi through the State level agency viz. the Tamil Nadu Energy Development Agency (TEDA). The efforts of the author to enrich the biodiversity in Raj Bhavan is on the lines of the Project Roshini as implemented in Rashtrapathi Bhavan, New Delihi for emulation in Raj Bhavan, Chennai.



The census on faunal variety is yet another exercise to take stock of the living species and to create awareness to protect them with its biome and as a whole to demonstrate balance of ecology of the estate in its pristine form.

K. Vivekanandan,
B.E., MBA, M.Sc. (Environmental Management)
Deputy Secretary to Governor
Raj Bhavan, Chennai – 600022

HISTORY

History of Raj Bhavan, Chennai

The Raj Bhavan, once known as Guindy Lodge was built by Governor William Langhorne (1672-78) in the early 1670s in garden space carved out of the Guindy Forest

When Guindy Lodge became the official country residence of the Governor, there were three single-storeyed bungalows in existence on the site of the present building. Between 1837 and 1841, various alterations and improvements were carried out by Lord John Elphinstone, whose pet project was to develop Guindy Lodge into something like what it is today.

Raj Bhavan, Guindy, is situated in the Guindy National Park Reserved Forest Area. The black buck, a rare species, was introduced in Guindy Park by Lord Willingdon in 1924. The present area of the Raj Bhavan Estate is 156.14 acres after large areas of land adjoining Raj Bhavan were made over for other public purposes.

In and around Raj Bhavan, we have deer (spotted deer, black buck and albino), mongoose, bonnet macaque, the common monkey of South India, toddy cat jackals, many varieties of reptiles and a large number of birds like partridges, pheasants, parrots, quail, paradise fly-catcher, etc. Bird watchers have noticed migratory birds here.

History of Raj Bhavan, Udhagamandalam

In the year 1876, the Government decided to purchase Upper Norwood and Lower Norwood, which belonged to the trustees of Lawrence Asylum and started efforts for the establishment of the Government House at Ootacamund. The Duke of Buckingham, who initiated the purchase, took possession of both the Upper and Lower Norwood and the Garden Cottage.

The present area of Raj Bhavan, Udhagamandalam is 86.72 acres. The main building has a plinth area of 29,505 sq.ft. and consists of a large Banqueting Hall, ball room, Drawing and Reception rooms, besides 17 Guest rooms and office rooms. The elevation of Raj Bhavan is 2,303 metres above mean-sea level and enjoys a warm, temperate climate with an average rainfall of 1,400 mm per year.

The Raj Bhavan Gardens is a fascinating experience. It consists of ornamental gardens in an area of about 9 acres, a rich lawn on 3 acres, four rosaries, two lily ponds, a sunken garden, two green houses, a vegetable garden and a nursery.

GUINDY FAUNA

The total number of animal species in India is 89450, of which insects alone account for 59353 species. Mammals account for 375 species varieties, birds account for 1230 species varieties, reptiles account for 428 species varieties, amphibians account for 300 species varieties and mollusca account for 500 species varieties.

Tamil Nadu is endowed with rich biodiversity, right from marine coastal systems in the Gulf of Mannar to terrestrial evergreen forests in the Western Ghats. The faunal diversity of Tamil Nadu includes 165 species of fresh water pisces, 76 species of amphibians, 177 species of reptiles, 454 species of birds and 187 species of mammals.

Chennai has the unique distinction of being a metropolitan city with its own forest within city limits. The Guindy National Park and Raj Bhavan forest area are undoubtedly the lung of the city. The people living around the park know that the temperature they experience even in summer is lower than that is experienced in other parts of the city. The biodiversity within the Raj Bhavan estate is quite amazing, despite the fact that it is a very small area surrounded by houses and habitation. The vegetation is mainly of the tropical dry evergreen type and over 350 species of plants have been found.

Guindy fauna demonstrates diverse varieties of species covering the thickly populated spotted deer, endangered black buck, bonnet macaque, the common monkey of South India, mangoose, jackals, toddy cat, small Indian civet, long legged jungle cat and the pangolin. Large number of birds like partridges, pheasants, parrots, quail, paradise fly catcher, treepie, white headed babbler, the sobriquent seven sisters, coppersmith, lesser golden backed wood peacher, brahminy mynas, roseringed parakeet, the koel, spotted owlet, the forest wagtail, the orange headed ground thrush, the ashy drongo, number of warblers and fly catchers, Indian pitta and brow shrike, etc. and large varieties of reptiles and insects.

The dense vegetative climate makes the soil of the estate to gain richness in having varieties of insects and reptiles. The estate is also a well known place for visiting migrating birds and the bird watchers evince keen interest in sighting the migrating birds in cooler months birds life enriched in the estate.

Although the faunal variety tend to vary due to species which are specific to seasons, the survey has been taken in a record time of 6 months mainly to bring out a baseline data on faunal diversity.

The Forest Department survey reveals that there are 1255 spotted deer and 371 black buck in Guindy National Park as per recent census enumeration by Forest Department. In Raj Bhavan also we have large number of deer. Also there are various kinds of snakes. The large rat snake, bronze necked tree snake, lizards are also seen as well represented species geckoes are seen in tree trunks and among reptiles largest lizard and monitor lizard. The starred tortoise is often seen in lawn. Domino cockroach, velvet mite, jewel bug, painted grasshopper are also noticeable. In post summer period number of invertebrates are seen.

THE FAUNAL SURVEY

By the direction of His Excellency the Governor of Tamil Nadu the faunal survey has been taken up. His Excellency being the lover of the nature has concern for Environment on his aegis the tree census in the estate was conducted and gap filling of trees were resorted to promote go green concept and the flora survey was also taken up and next in the line the survey of fauna has been taken up and documented as it looks on your hands.

METHODOLOGY

The entire area of Raj Bhavan estate was divided into various grids and each grid area was taken up for survey during varied timings of day and night to capture the varieties of fauna and the exercise was taken up in coordination with Zoological Survey of India, Zoology Department of Loyola College, Chennai and Forest Department. The survey was completed in a record time of 6 months.

FINDINGS AND SUGGESTIONS

The jackals and stray dogs are the only animals that keep the number of spotted deer in check. The threat from jackals does not seem to be very high when compared to stray dogs. Hence, to check the entry of stray dogs and keeping the dogs away from Raj Bhavan estate is found essential to protect the deer and black bucks which are already known to be endangered.

The rearing of goats/sheep inside the Raj Bhavan estate by the staff quarters dwellers cause another threat to the deer. An expert team from Tamil Nadu Veterinary and Animal Sciences University had conducted a study and suggested for the stoppage of rearing of goats as they cause transmission of diseases and it was also suggested that feeding deer with kitchen waste/refuses may lead to develop digestive problems.

The composition of fauna of Raj Bhavan tend to have low strength with respect to aquatic creatures but water storage ponds are available inside the estate which can be made to store water to improve the aquatic strength of Raj Bhavan. Similar exercise has been made in Children's Park, Guindy.

Fodder fields are to be developed with appropriate fodder crops to provide the deer with adequate nutritious food. This will be a standalone green fodder resource for the deer.

The smart mineral mixture need to be supplemented at water sources to augment the health of deer.

Usage of plastic bags and pet bottles inside Raj Bhavan needs to be banned to avoid animal getting these waste into its digestive system.

Sufficient number of speed breakers are to be put up at staff gate, road in front of Sardar Patel Statue, Velachery Gate to reduce the speed of the vehicle

More number of deer crossing caution board to be placed with deer photo and restricting the speed of the vehicle to 10 kmph.

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2	*Antilope cervicapra* (Linnaeus, 1758)	CERVIDAE	
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4	*Sus scropa (*Linnaeus, 1758)	SUIDAE	
5	*Viverricula indica* (Desmarest, 1804)	VIVERRIDAE	
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7	*Hystrix indica* (Kerr, 1792)	HYSTRICIDAE	
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19	*Eudynamys scolopacea* (Linnaeus, 1758)	CUCULIDAE	
20	*Centropus sinensis* (Stephens, 1815)	CUCULIDAE	
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47	*Hemidactylus triedrus* (Daudin)	GEKKONIDAE	
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	Hemiptera		
80	*Eusarcocoris* sp.	PENTATOMIDAE	
81	*Chrysocoris purpureus* (Westwood)	PENTATOMIDAE	

82	*Ectrychotes dispar* (Reuter)	REDUVIIDAE
83	*Leptocorisa acuta Thunb.*	COREIDAE
84	*Riptortus linearis* (Fabricius)	COREIDAE
	Coleoptera	
85	*Coccinella transversalis* (Fabricius)	COCCINELLIDAE
86	*Brumoides suturalis* (Fabricius)	COCCINELLIDAE
87	*Cheilomenes sexmaculata* (Fabricius)	COCCINELLIDAE
	Diptera	
88	*Musca (Musca) domestica* Linnaeus	MUSCIDAE
	Lepidoptera	
89	*Papilio demoleus* (Linnaeus)	PAPILIONIDAE
90	*Papilo polytes* (Linnaeus)	PAPILIONIDAE
91	*Catopsilia pomona* (Fabricius)	PIERIDAE
92	*Anosia chrysippus* (Linnaeus)	NYMPHALIDAE
93	*Tellervo limniace leopardus* (Butler)	NYMPHALIDAE
94	*Tellervo septentrionis dravidarum* (Fruhstorfer)	NYMPHALIDAE
95	*Euploea core core* (Cramer)	NYMPHALIDAE
96	*Junonia iphita* (Cramer)	NYMPHALIDAE
97	*Junonia lemonias lemonias* (Linnaeus)	NYMPHALIDAE
99	*Acraea violae* (Fabricius)	NYMPHALIDAE
100	*Eurema hecabe fimbriata* (Wallace)	PIERIDAE
101	*Graphium sarpedon* (Linnaeus)	PAPILIONIDAE
102	*Junonia almana almana* (Linnaeus)	NYMPHALIDAE
103	*Phalanta phalantha phalantha* (Drury)	NYMPHALIDAE
104	*Hypolimnas bolina* (Linnaeus)	NYMPHALIDAE
105	*Utetheisa pulchella* (Linnaeus)	ARCTIIDAE
	Hymenoptera	
106	*Delta pyriforme* (Fabricius)	VESPIDAE
	Arachnida, Uropygi	
107	*Thelyphonus sepiaris* (Butler 1873)	THELYPHONIDAE
	Arthropoda, Arachnida,	
108	***Oxyopes quadrifasciatus*** Koch,1878 *(Orange Striped Lynx Spider)*	OXYOPIDAE ★
109	***Sinopoda forcipata* Karsch 1881.** *(Yellowish-brown Huntsman)*	SPARASSIDAE ★

MOLLUSCA

110	*Cryptozona ligulata* (Ferrussac)	ARIOPHANTIDAE
111	*Cryptozona bistrialis* (Beck)	ARIOPHANTIDAE
112	*Achatina (Lissachatina) fulica fulica* (Bowdich)	ACHATINIDAE

Mammals

Fauna of Raj Bhavan Tamil Nadu

One of the most fascinating creatures of the Indian biodiversity is its mammalian fauna, which encompasses species as large as Whales, Elephants, Rhinoceros and Tigers. They are found in all types of habitats of the country, both terrestrial and aquatic. Of all the ecosystems of India, the mammalian fauna is richest in the northeastern India, followed by Western Ghats and the Deserts. The Indian fauna is heavily influenced by the Indo-Chinese, Malayan, Ethiopian and Palaearctic elements. The mammalian fauna of the world is represented by 4, 629 species belonging to 1135 genera, 136 families and 26 orders. Of theses, 387 species belonging to 179 genera, 44 families and 13 orders are found in the Indian Union. There are about 187 species of mammals present in Tamil Nadu. According to the CAMP reports the red-listed species include 40 species of mammals. The endemic fauna includes 24 species of mammals. Schedule I, II, III, IV and V animals include 22, 13, 5, 5 and 13 species of mammals respectively.

Axis axis (Erxleben, 1777)

Spotted Deer

Family: CERVIDAE, **Local Name:** *Cheetal* (Hindi/Bengali/Marathi), *Pulli maan* (Tamil/Malayalam) *Chukala jinka* (Telegu)

Description: This is India's most common and visible deer and also the only predominantly spotted in the country. The sexes are almost identical except for size and antlers in male. It has golden brown coast with white spots, feeds fallen fruits and leaves. **Size**: Total body length: 35-65 cm. Weight: 4-9kg. **Habitat**: Deciduous forests and around fringes.

Antilope cervicapra (Linnaeus, 1758)

Blackbuck

Family: CERVIDAE**, Local Name**: *Mrig, Harna* (Hindi), *Veli maan* (Tamil) *Krishna jinka* (Telegu)

Description: It is an exclusively in the Indian subcontinent. Males are dark brown to velvet black, white in under side. Males have beautiful spiral horns of equal length. **Size**: Height: 73-83 cm. **Weight**: 32-42kb.**Habitat**: Arid grassland, open scrub and semi-desert areas.

Macaca radiata (Geoffroy, 1812)

Bonnet Macaque

Family: CERCOPITHECIDAE, **Local Name:** *Vella kurangu*(Tamil), *Makad* (Marathi) *Kothi* (Telugu)

Description: A peculiar cap of long hair, arranged in a whorl, gives the Bonnet Macaque its name. It is a medium-sized species with a tail that is longer than its body. Its colour changes from lustrous brown in winter to scraggy buffy-grey in summer. This is the common commensal monkey of South India and can be seen around temples. **Size**: Total body length: 35-65 cm. Weight: 4-9kg. **Habitat**: Urban and rural areas, areas, deciduous forest and scrubs

Sus scropa (Linnaeus, 1758)

Wild boar

Family: SUIDAE, **Local Name**: *Jungli suar* (Hindi/Bengali), *Kattu panni* (Tamil/Malayalam)

Description: A large forest pig, Southern Indian pigs are also slightly larger in size. **Size**: Height: 90-180cm. **Weight**: 90-100kg. **Habitat**: Scrubs, grassland, mixed deciduous and evergreen forests.

Viverricula indica (Desmarest, 1804)

Small Indian-Civet

Family: VIVERRIDAE, **Local Name**: *Kasturi* (Hindi), *Punagu punai* (Tamil) *Meru, Poo veruke*(Malayalam)

Fauna of Raj Bhavan Tamil Nadu

Description: A common ring tailed civet is buff coloured with spots all over the body, nocturnal habits and hunts rats squirrels, lizards, birds. **Size**: **Height**: 45-60cm. **Weight**: 2.5-3.5kg. **Habitat**: All habitats except deserts and mountain.

Herpestes edwardsii (Geoffroy St. Hillaire)

Grey Mongoose

Family: HERPSETIDAE, **Local Name**: *Newala* (Hindi), *Keeree* (Tamil/Malayalam/Kannada)

Description: The Common Indian Mongoose is used in snake, mongoose shows. Brown in colour. Tail; long, bushy. **Size**: Height: 35-45cm. **Weight**: 1-1.5kg.**Habitat**: Open scrubs, cultivated land, rocky patches and forest edges all over India.

Hystrix indica (Kerr, 1792)

Indian Porcupine

Family: HYSTRICIDAE**, Local Name**: *Sayal, Sahi* (Hindi), *Mullan panni* (Tamil/Malayalam) *Yedu pandi* (Telegu)

Fauna of Raj Bhavan Tamil Nadu

Description: Most commonest and largest porcupine of India, body covered with long black & white quills.**Size**: Height: 60-90cm. **Weight**:11-18kg.**Habitat**: Rocky hill side, open country side and deciduous forests throughout India. Inhabits in burrow, thick bush and tall burrows.

Canis aureus (Linnaeus, 1758)

Golden Jackal

Family: CANIDAE, **Local Name**: *Gidar* (Hindi), *Naree* (Tamil) *Kurukkan (*Malayalam) *Nakka* (Telegu)

Description: Slender. Dog-like. Tail; bushy. Buffy grey-coat mixed with black hairs in underside. Call: howls, laughter. Feeding through hunting and scavenging **Size**: Height: 60-75cm. **Weight**: 7-15kg. **Habitat**: Urban and semi urban areas and forests.

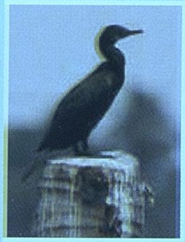
Funambulus palmarum (Linnaeus, 1766)

Indian Palm Squirrel

Family: CANIDAE, **Local name:** Hindi *gilheri*; Ben. *beral*; Mar. *khadi khar*; Tamil *anil pilli*

Description: It has three dorsal stripes. Tail bushy, slightly longer, flicked while calling. Its shrill piercing calls repeated and nauseum in an even crescendo is often heard penetrating the peace at Raj Bhavan. It feeds on young shoots, buds, bark, fruits, nuts, eggs, nectar, pods, etc,

Birds



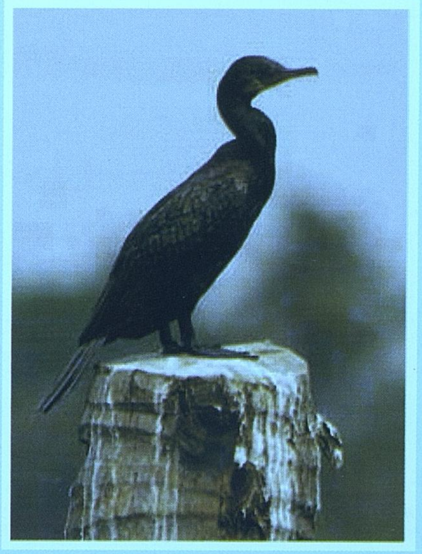
The birds evolved about 150 million years ago, occupied diverse ecological niches and are distributed in all available habitats. The Indian avifauna represents Pale-arctic, Oriental, Ethiopian and Australiasian zoogeographic elements. In the world, 9702 species of birds are present. There are about 1225 species of birds present in India under 78 families and 20 orders thus representing 13.66% of the world avian diversity, of which 454 species of birds present in Tamil Nadu. About 176 species under 106 genera, 39 families and 11 orders are endemic to Indian subcontinent, including Pakistan, Nepal, Bhutan, Myanmar, Sri Lanka and Bangladesh. According to the CAMP reports the red-listed species include 32 species of birds and the endemic fauna includes 17 species. Schedule I animals include 42 species of birds. Schedule IV and V animals include 367 species of birds, and 1 species of birds respectively of Wildlife Protection Act (1972).

Phalacrocorax niger (Vieillot, 1817)

Little Cormorant

Family: Phalacrocidae, Local name: Neerkaagam

Fauna of Raj Bhavan Tamil Nadu



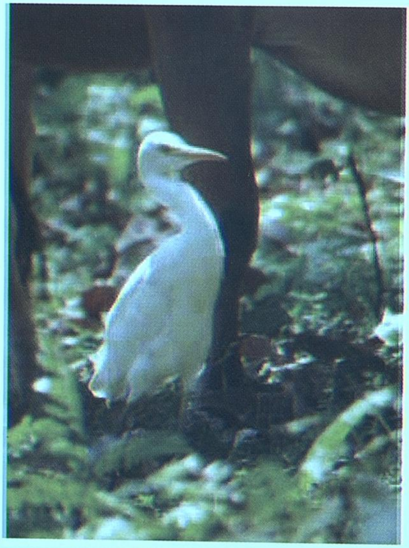
Size: Jungle crow +. **Field characters:** A glistening black duck like water bird with a longish stiff tail, and slender, compressed bill sharply hooked at the tip. A small white patch on throat and a crest at back of head. Sexes alike. Singly, or gregariously, at tanks, jheels etc.

Bubulcus ibis (Linnaeus, 1758)

Cattle Egret

Family: Ardeidae, Local name: Unni Kokku

Fauna of Raj Bhavan Tamil Nadu



Size: Little Egret. **Field characters:** In non breeding pure white plumage distinguished from the little egret by colour of bill which is yellow, not black. The orange-buff head, neck and back of the breeding plumage render it unmistakable. Sexes alike. Parties, attending on grazing cattle.

Ardeola grayii (Sykes, 1832)

Indian Pond-Heron.

Family: Ardeidae, Local name: Madaiyaan

Size: Hen +; 42-45 cm; **Field characters**: Adult: Sexes alike. A thickset, earthy-brown at rest and largely snow-white in flight water bird has yellow bill, which is black at tip and bluish at base; white chin, throat and fore neck; horny-green legs. *Breeding*: Long recumbent white or buffoccipital crest of lanceolate plumes; ashy brown upper breast; deep maroon and long decomposed feathers on back; white under parts. *Non-breeding*: Dark brown head and neck with buff streaks of sides of neck prominent; brown mantle; white streaks on scapulars; white under parts.

Nycticorax nycticorax (Linnaeus. 1758)

Black-crowned Night-Heron

Family: Ardeidae, Local name: Vakkaa

Size: Indian Pond- Heron =; 58-65 cm; Field **characters:** *Adult*: Sexes alike; strongly built grey, white and black heron with stout black bill. Crown, nape and occipital crest black with two or three very long, narrow white plumes; forehead and a streak over eye white; sides of neck, wings, rump and tail greyish; eyes blood-red; under parts white; legs and feet pale-green, in breeding season turn pinkish and bill blacker. *Juvenile*: Pale-smoky brown with bright yellow eyes and resembles adult Indian Pond-Heron except for white wings.

Haliastur Indus (Boddaert, 1783)

Brahminy Kite

Family: Accipitridae, Local name: Garudan

Fauna of Raj Bhavan Tamil Nadu

Size: Pariah Kite -; 48 cm. **Field characters:** Sexes alike. *Adult*: Has bright chestnut and white plumage, and rounded tail. *Juvenile*: Is chocolate brown with pale bars across the upper wing. **Voice**: Short high **Habitat**: Near around freshwater bodies, marshes, estuaries, and coastal waters.

Vanellus indicus (Boddaert, 1783)

Red-wattled Lapwing.

Family: Charadriidae, Local name: Aalkaatti

Size: Grey Partridge +; 32- 35 cm; **Field characters:** *Adult*: Sexes alike; a familiar plover with black tipped red bill, crimson-red wattle and eyelids, and bright yellow legs. Head, neck and breast jet-black; upperparts bronze-brown; underparts white continuing to broad bands up the neck-sides towards eyes; rump, upper tail-coverts and tail white, the last with a broad sub-terminal black band; primaries and outer secondaries black, the latter with broad white bases. *Juvenile*: Black feathers of head broadly fringed with brown; chin, throat and fore-neck white; sides of neck sullied white.

Columba livia Gmelin, 1789

Blue Rock Pigeon

Family: Columbidae, Local name: Maadap pura

Size: House crow; about 13 inches. **Field characters**: A familiar slat grey bird with glistening metallic green, purple and magenta sheen on neck and upper breast. Two dark bars on wings, and a band across end of tail. Sexes are alike. Flocks and colonies, about cliffs and human habitations.

Streptopelia chinensis (Scopoli, 1786)

Spotted Dove

Family: Columbidae, **Local name:** Mani Puraa

Size: Between myna and Pigeon. **Field characters:** White-spotted pinkish brown and grey upperparts and white and black chessboard on hind neck are leading clues to its identity. Sexes are alike. Pairs or parties

Psittacula krameri (Scopoli, 1769)

Rose-ringed Parakeet

Family: Psittacidae, **Local name:** Pachai kili

Size: Myna ± ; with a long pointed tail. **Field Characters**: A small grass-green parakeet with maroon shoulder patches. Females lacks the black and rose pink collar of male. Noisy flocks about cultivation, in lightly wooded country.

Eudynamys scolopacea (Linnaeus, 1758)

Asian Koel

Family: Cuculidae, Local name: Kuil

Size: House crow; Slender, with longer tail. **Field characters**; Males are glistening black, with yellowish green bill and crimson eyes. Female brown, profusely spotted and barred with white. Familiar shrieking crescendo calls, *Kuoo-Kuoo-Kuoo.* Singly or pairs, in grooves of trees, etc.,

Centropus sinensis (Stephens, 1815)

Greater Coucal

Family: Cuculidae, **Local name:** Chembagam

Fauna of Raj Bhavan Tamil Nadu

Size: Jungle Crow; with long, broad tail. **Field Characters**: A clumsy, glossy black bird with conspicuous chestnut wings and long, broad, black graduated tail. Sexes are alike. Singly or pairs, stalking along the ground in undergrowth.

Tyto alba (Scopoli, 1769)

Barn Owl

Family: Strigidae, **Local name:** Saavu kuruvi

Fauna of Raj Bhavan Tamil Nadu

Size: Jungle Crow ±. **Field Characters:** A typical owl, golden buff and grey above finely stippled with black and white; silky white below tinged with buff and normally spotted dark brown. Large round head with a conspicuous ruff of stiff feathers surrounding a comically pinched with monkey-like facial disc. Sexes are alike. Singly or pairs, about deserted buildings and ruins.

Athene brama (Temminck, 1821)

Spotted Owlet

Family: Strigidae, Local name: Pulli aandhai

Fauna of Raj Bhavan Tamil Nadu

Size: Myna. **Field characters**: A squat, white-spotted grayish brown little owl, with the typical large round head and forwardly directed starting yellow eyes. Sexes are alike. Pairs or family parties, about villages, in ruins, and grooves of ancient trees etc.,

Alcedo atthis (Linnaeus, 1758)

Small Blue Kingfisher

Family: Alcedinidae, **Local name:** Meenkothi

Size: Sparrow +; *c.*18 cm. **Field characters** Sexes alike. Brilliant turquoise blue and orange kingfisher; blue green above, deep rust below; white neck patch; rust-red ear coverts; short stumpy tail and long, straight pointed bill.

Halcyon smyrnensis (Linnaeus, 1758)

White-breasted Kingfisher

Family: Alcedinidae, **Local name:** Meenkothi

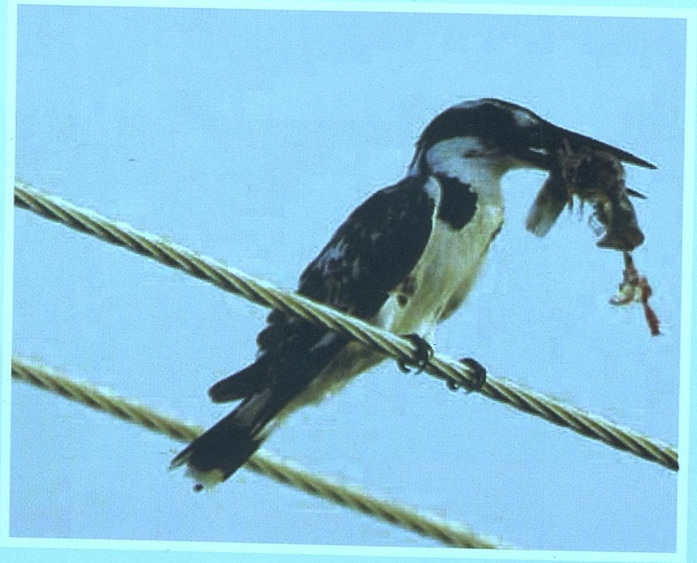
Fauna of Raj Bhavan Tamil Nadu

Size: Myna +; c. 28 cm. **Field characters**: Sexes alike. A large Kingfisher with large red bill, chocolate-brown head and under parts except white throat and centre of breast; brilliant turquoise-blue upperparts, rump and tail. In flight, the bold white wing-patch is the diagnostic

Ceryle rudis (Linnaeus, 1758)

Lesser Pied Kingfisher.

Family: Alcedinidae, **Local name:** Meenkothi



Size: Myna +; 31 cm. **Field characters** *Male*: A black and white Kingfisher with small crest; black band through eye with broad white super cilium; upperparts blotched with black; white under parts with black breast-band. *Female*: Similar to male but has single, usually broken breast band.

Merops orientalis (Latham, 1801)

Small Bee-eater

Family: Meropidae, **Local name:** Panchurutaan

Size: Sparrow. **Field characters**: A dainty grass green bird tinged with reddish brown on head and neck. Central pair of tail feathers prolonged into blunt pins. Slender, long, slightly curved bill. Conspicuous black necklace is found. Sexes are alike. Pairs or parties, in open country on telegraph wires, fence posts, etc.,

Coracias benghalensis (Linnaeus, 1758)

Indian Roller

Family: Coraciidae, **Local name:** Panangkaadai

Size: Pigeon. **Field Characters**: A striking oxford and Cambridge blue bird, with biggesh head, heavy black bill, refuses brown breast, and pale blue abdomen and under tail. The dark and pale blue portions of the wings show up as brilliant bands in flight. Sexes are alike. Singly perched on telegraph wires etc., in open cultivated country.

Upupa epops (Linnaeus, 1758)

Common Hoopoe

Family: Upupidae, **Local name:** Kondailaathi

Fauna of Raj Bhavan Tamil Nadu

Size: Myna ±. **Field Characters**: A fawn coloured bird with black and white zebra markings on back, wings and tail. A conspicuous fan shaped crest, and long, slender gently curved bill. Sexes are alike. Singly or pairs, usually on the ground in lightly-wooded country.

Megalaima haemacephala (P.L.S. Muller, 1776)

Coppersmith Barbet

Family: Capitonidae, **Local name:** Kukuruvan

Size: Sparrow. **Field characters**: A heavy billed grass green barbet with crimson breast and forehead, yellow throat and green streaked yellowish under parts. Short truncated tail, distinctly triangular in flight silhousette. Sexes are alike. Singly or loose parties, on banyan and peepul trees in fruit.

Dinopium benghalense (Linnaeus, 1758)

Lesser Golden-backed Woodpecker

Family: Picidae, **Local name:** Marangkothi

Size: Myna. **Field characters**: Upper plumage golden yellow and black; lower buffy white streaked with black, more boldly on breast. Crown and occipital crest crimson. Female similar, but with the fore crown black stippled with white, and only occipital crest crimson. Singly or pairs, on tree trunks in open wooded country, orchards etc.,

Motacilla maderaspatensis (Gmelin, 1789)

Large Pied Wagtail

Family: Motacillidae, **Local name:** Kulathu kuruvi

Size: Bulbul ±. **Field characters:** Sexes alike. Adult: A large Wagtail with black and white plumage that distinguishes it from the all other wagtails, wing-coverts largely white, supercilium white. Juvenile: With brownish-grey head, mantle and breast, with white supercilium.

Pycnonotus jocosus (Linnaeus, 1758)

Red-whiskered Bulbul

Family: Pycnonotidae, **Local name:** Thondaikoluthi kuruvi

Fauna of Raj Bhavan Tamil Nadu

Size: Red vented Bulbul. **Field characters:** Brown above, white below with a broken blackish necklace on breast. Black, upstanding pointed crest, Crimson whiskers and crimson patch under root of tail are distinguishing features. Sexes are alike. Pairs or loose gatherings.

Pycnonotus cafer (Linnaeus, 1766)

Red-vented Bulbul

Family: Pycnonotidae, **Local name:** Kondai kuruvi

Fauna of Raj Bhavan Tamil Nadu

Size: Myna. **Field characters**: A perky smoke brown bird with partially crested black head, scale like markings on breast and with partially crested black head, scale like markings on breast and back, a conspicuous crimson patch below root of tail, and a white rump, the last particularly noticeable in flight. Sexes are alike. Pairs or small gatherings, in gardens and lightly wooded country.

Terpsiphone paradisi (Linnaeus, 1758)

Asian Paradise-Flycatcher

Family: Monarchinae, **Local name:** Vethi vaalkuruvi

Fauna of Raj Bhavan Tamil Nadu

Size: Bulbul. **Field characters**: Adult male silvery white with metallic black crested head and two long, narrow ribbon like feathers in tail. Young male, and female, chestnut above, grayish white below, very like a bulbul in overall appearance. Young male has chestnut streamers in tail; female is without. Singly or pairs, in wooded country.

Nectarinia asiatica (Latham, 1790)

Purple Sunbird

Family: Nectariniidae, **Local name:** Oodha thenchittu

Size: Sparrow. **Field characters:** Male in non-breeding plumage like female – brown to olive brown above pale dull yellow below- but with darker wings and a broad black stripe running down middle of breast. Pairs in open lightly-wooded country.

Acridotheres tristis (Linnaeus, 1766)

Common Myna

Family: Sturnidae, **Local name:** Nahanavai

Size: Bulbul, Pigeon-9 inches. **Field characters**: A familiar perky, well groomed dark brown bird with bright yellow bill, legs, and bare skin round eyes. A large white patch in wing conspicuous in flight. Sexes are alike. Pairs or parties, about human habitations and on country side.

Acridotheres fuscus (Wagler, 1827)

Jungle Myna

Family: Sturnidae, **Local name:** Kaatu nahanavai

Size: Same as Indian Myna. **Field characters**: Very like Indian myna but more grayish brown overall; with similar white wing patches, conspicuous in flight. Absence of bare bright yellow skin round eyes, and the busy upstanding tuft of feathers on fore head are diagnostic points. Pairs or parties on well wooded countryside; seldom about human habitations.

Dicrurus macrocerus (Vieillot, 1817)

Black Drongo

Family: Dicruidae, **Local name:** karichchaan kuruvi

Size: Bulbul. **Field characters**: A slim and agile glossy blue-black bird with long, deeply forked tail. Usually shows white rectal spot. Singly, on the open countryside and about cultivation.

Dendrocitta vagabunda (Latham, 1790)

IndianTreepie

Family: Corvidae, **Local name:** Maan kuil

Size: Myna; Tail 12 inches long. **Field characters**: A long tailed chestnut brown bird with sooty head and neck. Black tipped grey tailed and grayish white wing patches conspicuous in flight. Flight undulating a swift noisy flapping followed by short glide on outspread wings and tail. Sexes are alike.

Corvus splendens (Vieilliot, 1817)

House Crow

Family: Corvidae, **Local name:** Kaakai

Fauna of Raj Bhavan Tamil Nadu

Size: Pigeon; 17 inches. **Field characters**: Grey neck and smaller size distinguish it from the all black jungle crow. Adult has glossy to black of plumage, and collar is well defined and becomes paller with wear. Sexes are alike.

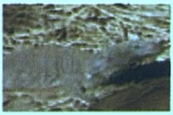
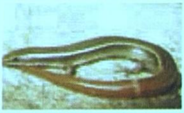
Corvus macrorhynchos (Wagler, 1827)

Jungle Crow

Family: Corvidae, **Local name:** Andankaakai

Size: House crow; Kite. **Field characters**: All-black plumage seperates this species from house crow. A glossy jet black crow with a heavy bill and deep and hoarse caw. Sexes alike. Sighted singly, pairs or loose.

Reptilia

Reptiles have originated some 300 million years ago during the Pennsylvanian period of the earth's history and attained the peak of glory during the Mesozoic era, which was appropriately called the 'Golden age of Reptiles 'as it was during this period the giant dinosaurs ruled the earth. The present day reptiles, which appeared during Tertiary period, are but a fraction of the giant reptiles of the past. Reptiles occupy the middle position among the four major groups of land living vertebrates.

Reptiles are found in nearly all the parts of the world, except the very cold regions. There are more than 6,000 species in all. Of the 489 species of reptiles found in India, nearly 200 species are endemic to India. All the three living orders of reptiles have their representatives are the Order Crocodilian containing the crocodiles and gharials with 3 species, the Order Testudines (turtles and tortoises) with 31 species and the order Squmata (lizards and snakes) with 191 species of lizards and 264 species of snakes.

In India, the reptile rich areas are the Western Ghats, Eastern Himalayas and the Andaman and the Nicobar Islands are generally endowed with a varied and unique reptile fauna including rarest reptiles.

Geochelone elegans (Schoepff)

Indian Star Tortoise

Family: Testudinidae,

Fauna of Raj Bhavan Tamil Nadu

***Description* :** Carapace is elongated, highly domed, the vertebral and costal shields form well marked conical humps in the adults, the apex of each hump correspond with the areola; lateral aspects of carapace are almost vertical; anterior and posterior margins reverted, the posterior one is strongly serrated. Nuchal shield is not present. Head and limbs are yellow more or less spotted with dark brown or black.

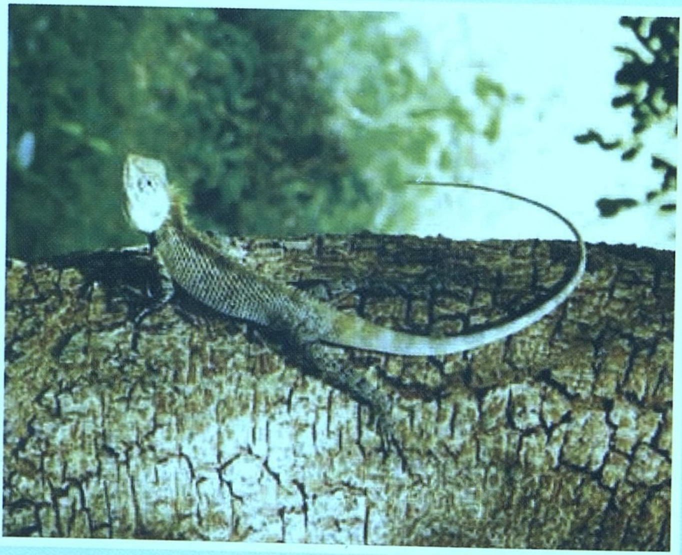
***Distribution* :** INDIA : Peninsular India.

Elsewhere: Pakistan and Sri Lanka.

Calotes versicolor (Daudin)

Indian Garden Lizard.

Family: Agamidae



Description : Body compressed, dorsal scales strongly keeled and more or less larger than ventral; two well – separated spines on each side of the back of the head above the ear. Body is grayish brown above with dark transverse bars. Tail is marked with light and dark bands. During the breeding season the male assumes a brilliant crimson colour which is source of the misappropriate name 'Blood Sucker' given to the harmless lizard.

***Distribution**:* INDIA: Throughout India.

Elsewhere: Sumatra to South-China, Sri Lanka, Pakistan and Afghanistan.

Sitana ponticeriana (Cuvier)

Fan Throated Lizard

Family: Agamidae

Description : Body compressed light brown above with series of dark brown, black-edged rhomboidal spots along the middle of the back. A distinct light line along each side of the spots and the ventral side is whitish; Tail round and slender and covered with equal keeled scales. The gular pouch of the male turns brilliant red, black and blue during the breeding season.

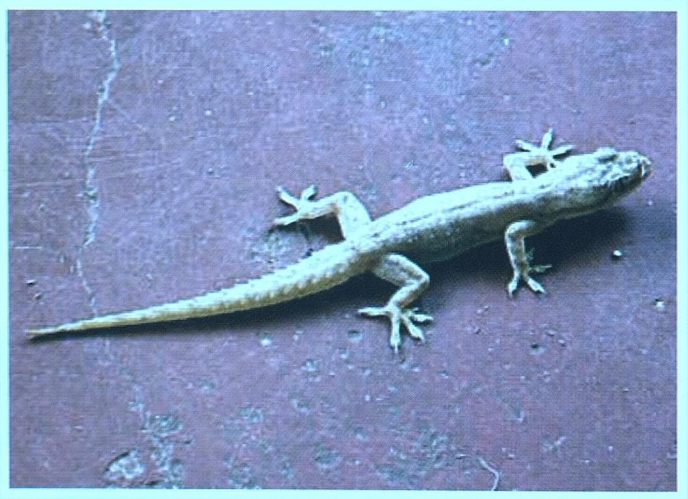
Distribution: INDIA : Whole of India.

Elsewhere: Sri Lanka.

Hemidactylus frenatus Schlegel in. (Dum. & Bibr.)

Southern House Gecko

Family: Gekkonidae ,



Description: Dark brownish dorsally with distinct darker marking often arranged as longitudinal stripes on the back and whitish below. Head marked with dark and light lines. The flanks are spotted with dark. Tail is sometimes coral red during life. The pattern is distinct in the young and fades in the adult. The call of gecko is very loud.

Distribution: INDIA: Peninsular India, West Bengal, Andaman and Nicobar Islands.

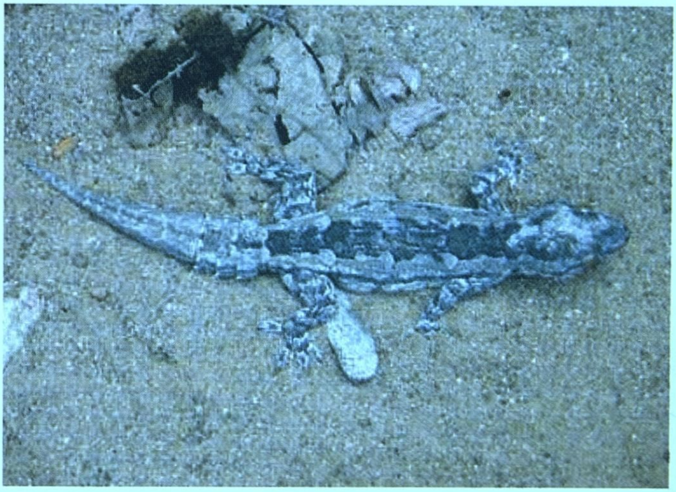
Elsewhere **:** Bangladesh.

Hemidactylus leschenaultii (Dum.&Bibr.)

Bark Gecko

Family : Gekkonidae

Fauna of Raj Bhavan Tamil Nadu



Description: Grey above and whitish below; dorsum with conspicuous wavy cross-bars; a dark streak from the eye extending on to the sides of the flanks. Male with 10-17 femoral pores on each side. The head and the body length is 84mm and the tail is as long. The gecko spends most of the day lying concealed under the bark of huge trees situated several meters above the ground.

Distribution: INDIA: Throughout India.

Elsewhere: Sri Lanka.

Hemidactylus triedrus (Daudin)

Termite Hill Gecko

Family: Gekkonidae

Fauna of Raj Bhavan Tamil Nadu

Description: Head rather large and the snout obtusely pointed. Body heavily tuberculated and it can be easily recognized by three white edged olive green cross bars and pinkish white below. The young are light brown with white- edged dark brown crossbars. Tail marked with regular black and light rings.

***Distribution*:** INDIA: Tamil Nadu, Andhra Pradesh, Karnataka, Kerala and Maharashtra.

Elsewhere: Sri Lanka and West Pakistan.

Eutropis carinata (Schneider)

Common Keeled Skink

Family: Scincidae

Description: Dorsal and lateral scales subequal, Head with enlarged scales arranged symmentrically. Body robust covered with cycloid imbricate scales, lwer eye-lid scaly. Dorsum bronzy, sides darker. Body characterised by two prominent dorso – lateral stripes, one starting from above the eye and extending to the tail and a second starting from the upper lip and extending to the groin. Underside yellow.

Distribution: INDIA: Peninsular India,Assam and Bengal

Elsewhere: Sri Lanka and Nepal.

Lygosoma punctata (Gmelin)

Dotted Garden Skink

Family: Scincidae

Description: A slender, elongate, snake like short-legged secretive lizard; ear- opening distinct, almost round, smaller than eye; lower eyelid scaly. Dorsal scales, smooth, 24 to 26 rows of scales round the mid body. Digits long fourth toe distinctly longer than the third; from 11 to 14 keeled lamellae under the fourth toe. Tail tapering to a point, covered with thick subequal scales, thick at base. Tail reddish in the young

Distribution: INDIA : Whole of India.

***Elsewhere*:** Sri Lanka

Varanus bengalensis (Linnaeus)

Indian Monitor

Family: Varanidae

Fauna of Raj Bhavan Tamil Nadu

Description: Young dark olive above with numerous light spots or ocelli alternating with dark bars and whitish on the undersides with narrow dark transverse bars sometimes broken up into spots. Adult brownish or olive above with blackish dots on the back. Lower parts yellowish mottled with black.

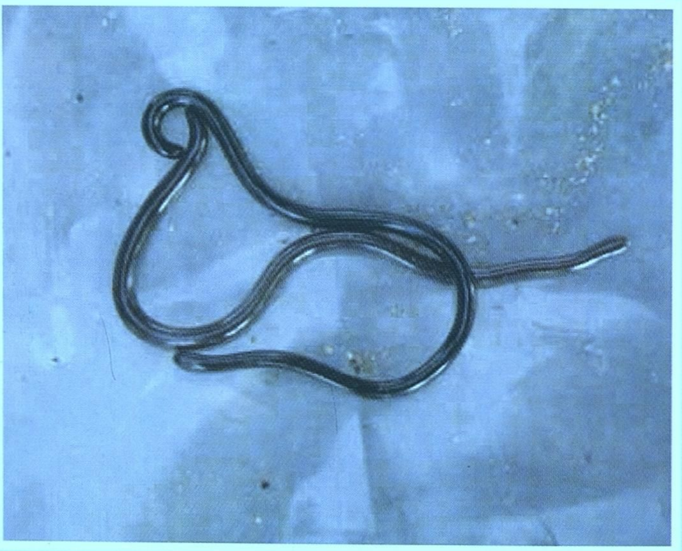
Distribution: Whole of India

Elsewhere: Burma, Nepal, Pakistan, and Sri Lanka.

Ramphotyphlops braminus (Daudin)

Common Blind Snake

Family : Typhlopidae



Description: Head same width as body, Snout round. Tiny scale- covered eye as black dot. Short, blunt tail ends in a tiny spine. Glossy body, almost uniform reddish-brown or blackish- brown above; lighter below. Often mistaken for a worm, but a close look will reveal the scales, eyes and tiny tongue. Only upper jaw (maxilla) has teeth.

Distribution: Throughout India, including Andaman and Nicobar Islands and the Lakshadweep.

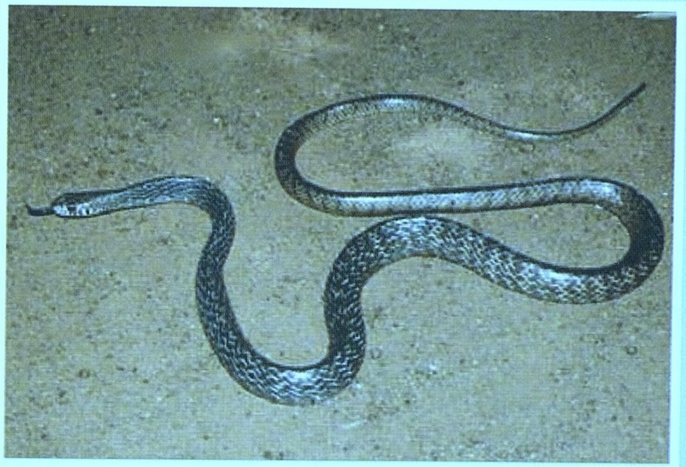
Elsewhere: South Asia.

Ptyas mucosus (Linnaeus)

Rat snake

Family*:* Colubridae

Fauna of Raj Bhavan Tamil Nadu



Description: Usually greenish or yellowish-brown above with black irregular cross-bars that often tend to fuse and form a reticulate pattern, at least on the posterior half of the body including the tail. Yellowish or whitish below, the yellowish tinge being more pronounced near the throat. Upper and lower labials, scales on the side of throat and underside of tail margined with black.

Distribution: INDIA:Throughout India.

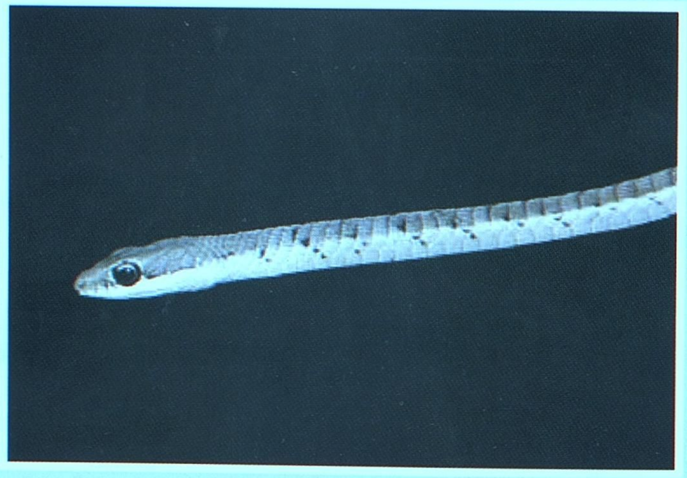
Elsewhere: Sri Lanka, Baluchistan, Afghanistan, Java and Sumatra.

Dendrelaphis tristis (Daudin)

Bronze-back Tree Snake

Family : Colubridae

Fauna of Raj Bhavan Tamil Nadu



Description : Dorsally bronze-brown of purplish-brown with a buff lateral stripe edged with black extending from the head to the vent. Scales on the neck and fore body yellow; upper lip yellow. Head with a dark temporal band extending onto the neck, where it may break up into vertical bars. Belly grey, light green or whitish.

Distribution : INDIA: Throughout India.

Elsewhere **:** Sri Lanka.

Xenochrophis piscator (Schneider)

Checkered keelback Water Snake

Family : Colubridae

Description: Usually olive, yellow or brown above, with a distinct pattern of numerous black and white spots arranged like a chessboard which is the source of the snake's common name; belly white or yellow. Head olive brown, with two black lines behind the eye on each side; a dark stripe on the nape.

Distribution. INDIA:Throughout India.

Elsewhere: Nepal, Bangaladesh, Bhutan, Pakistan and Sri Lanka.

Ahaetulla nasutus (Lacepede)

Green Whip Snake

Family : Colubridae

Fauna of Raj Bhavan Tamil Nadu

Description: Dorsally parrot-green and pale green on the lower parts. Flanks with a white or yellow line; interstitial skin with an oblique series of black and white lines that are most evident anteriorly; lips yellowish. Throat whitish or sometimes pale bluish.

Distribution : India : Peninsular India except Ganges Valley west of Patna and Bengal.

Elsewhere **:** Burma and Sri Lanka.

Naja naja (Linnaeus)

Indian Cobra

Family: Elapidae

Description: Light to dark brown above with pale reticulations and white or yellowish below. Apart from the well-defined "spectacle" mark on the expanded hood. Cobra can be distinguished from other land snakes by the presence of a dark spot on either side of the lower surface of the hood and two or more broad black cross bands further below.

***Distribution* :** Throughout Indian Subcontinent.

Elsewhere : Sri Lanka.

Amphibia

One of the main Problems of establishing evolutionary lineage of this group is the sparse fossil record. However, the earliest frog fossil *Vieraella herbstii* is about 160 million years old and it came from Argentina. *Triadobatrachus masenotti* found in Madagascar and believed to be the ancestor of the modern day frog is 200 million years. The modern day frogs, toads and caecilians are anatomically highly modified; however, the frogs and toads have adapted for jumping while the caecilians have lost their limbs and adapted for fossorial life. The present day frogs evolved around 250-280 million.

There are more than 5150 species of amphibians found in the World. In India comprises of 240 species of amphibians under 38 genera 9 families and 3 orders. Of which 138 species are endemic to India, the amphibian species are not evenly distributed throughout India, the highest concentration is found in Western Peninsula followed by North-east. Interestingly all the three living orders of amphibia viz. Gymnophiana, Caudata and Anura are distributed in North-east India, the Western Peninsula has Gymnophiana and Anura while the rest of the geographical regions of the harbours only Anura.

Duttaphrynus melanostictus (Schneider, 1799)

Common Indian Toad

Family: Bufonidae

Fauna of Raj Bhavan Tamil Nadu

Description: The toad reaching the length of 160 mm (SVL= Snout to vent length); the females larger than males; poisonous glands and conical warts present throughout the ventral region. The tympanum is distinct.

Habitat: They are found abundantly in both dry and damp areas and widely distributed throughout India.

Euphlyctis cyanophlyctis (Schneider, 1799)

Skipper Frog

Family: Dicroglossidae

Description: Medium sized frog, mostly found in stagnant waters, water bodies and torrential streams, camouflaged to its surroundings. SVL reaches 60 mm. females is larger than males. Tympanum visible and hind limb fully webbed.

Habitat: They are found in almost all terrestrial water bodies, commonly in rice fields, irrigation canals and stagnant water bodies.

Euphlyctis hexadactylus (Lesson, 1834)

Pond Frog or Green Frog

Family: Dicroglossidae

Description: The frogs are medium to large sized, measures maximum of 120 mm (SVL-Snout to vent length). Tympanum is distinct and the first finger is slightly longer than the second. The hind limb is fully webbed.

Habitat: Mostly found in stagnant water and ponds.

Fejervarya limnocharis (Gravenhorst, 1829)

Indian Cricket Frog or Paddy Field Frog

Family: Dicroglossidae

Fauna of Raj Bhavan Tamil Nadu

Description: Small frogs reaching length of 50 mm(SVL). The male are smaller than the female, snout is pointed and the tympanum is about 2/3 diameter of eye.

Habitat: They inhabit stagnant waters (paddy fields, small ponds) and slow running streams in forests.

Hoplobatrachus tigerinus (Daudin, 1802)

Indian Bull Frog

Family: Dicroglossidae

Description: Large sized frogs found in the edges of the streams with an average length SVL of 15mm. The snout is distinct and pointed and tympanum is distinct.

Habitat: This species is mostly found in forests near streams during day and night.

Kaloula taprobanica (Parker, 1934)

Indian Painted Frog

Family: Microhylidae

Fauna of Raj Bhavan Tamil Nadu

Description: Maximum SVL 75mm, females are slightly larger than males. Colour is dorsally grey to black with an interorbital bar. Dorsolaterally reddish-orange, an orange bar from posterior edge of eye to base of upper arm. Ventral pale yellowish- grey, spotted with brown or black.

Habitat: A fossorial species but is also a good climber found after heavy rains next to human settlement, rice fields water ponds along roads.

Microhyla ornata (Dum. &Bibr., 1841)

Ornate Narrow- mouthed Frog

Family: Microhylidae

Description: Small frog; bronze colored with a band running through the sides from eyes, SVL reaches up to 25 mm; pointed snout; tympanum visible.

Habitat: Throughout the forest vegetation and found up to 1500m ASL. Mainly found in temporary rainwater pools, dry litter and open grassy areas during monsoon.

Ramanella variegate (Stoliczka,1872)

Marbled Narrow- mouthed Frog

Family: Microhylidae

Description: These are small and have variegated markings. The finger tip have pads which is absent in the toe is genus character which makes easy for identification. The discs on the fingers are triangular. Toes have rudimentary webbing with two metatarsal tubercles. The males have a single subgular vocal sac and call at night while afloat in the water.

Habitat: They often found indoor in homes, Termite mounds and beneath the stones. These have tolerance to salinity to some extent

Polypedatus maculatus (Gray, 1834)

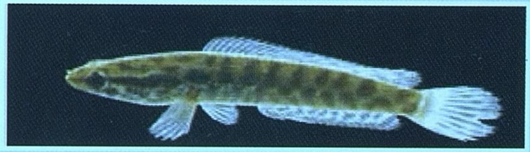
Common Tree Frog

Family: Rhacohoridae

Description: Head broader than long. Nostril closer to tip of snout than eye. Inter orbital broader than upper eyelid. Tympanum distinct, fingers with rudimentary web. First and second fingers equal. Tips of the fingers and toes horseshoe shaped distinct discs.

Habitat: Nocturnal in habit and generally found inside near thick bushes.

Fishes



Record of primitive fishes was known date back to the Cambrian period, about 550 million years ago. The jawless fishes lived relatively over the following 100 million years. The Devonian period, about 360 to 400 million years ago, is known as the 'age of Fishes' because of the abundance and diversity of fishes that appeared during this period.

The world's fish diversity is estimated to be 21,723 extant species under 4,044 genera, 445 families and 50 orders, of which 8411 are fresh water and 11,650 marine species. Sir Francis Day studied the systematic of Indian fishes for over 20 years and listed 351 genera and 1418 species of marine brackish water and fresh water fishes in 1868. Later Alcock added 86 new genera and 200 species to the list. The Indian fish diversity represent 11.72% of the world, comprising of 2546 species under 969 genera (24%), 254 families (57%) and 40 orders (80%).

The Indian fish fauna includes 2 endemic families are namely Parapsilorhynchidae, distributed in Western Ghats, Satpura Mountains and Bailadila range of Madhya Pradesh and Horaichthydae, distributed in the west coast of India. The fishes of India contain 223 endemic species representing 8.75% of the fishes known from India and 127 monotypic genera. Most of these endemics, numbering 116 species are exclusive to the Western Ghats, found mostly in the upper reaches and isolated river stretches.

Rasbora caverii (Jerdon)

Cauvery Rasbora

Class: Actinopterygii, **Order:** Cypriniformes, **FAMILY:** CYPRINIDAE

Fauna of Raj Bhavan Tamil Nadu

Description: Body elongate, compressed. Abdomen rounded. Head large pointed. Snout slightly pointed. Mouth large cleft oblique. Eyes placed laterally not visible from below. Barbels one rostral pair or none. Pharyngeal teeth are one or two rows. Dorsal fin inserted behind the orgin of pelvic fin. Dorsal-hypural distance, when carried forward, falls behind posterior border of eye.

Distribution: India and Sri Lanka. In India this fish is found in southern parts notably in Karnataka especially in Cauvery Basin.

Channa punctatus (Bloch)

Spotted Snake Head

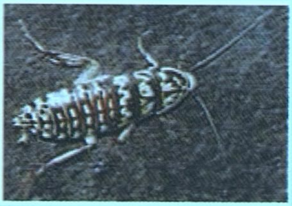
Order: Perciformes, **FAMILY:** CHANNIDAE

Description: Body elongate, sub cylindrical anteriorly. Abdomen rounded. Head depressed with plate like scales. Snout is somewhat obtuse. Mouth opening moderate to wide, may extend to below orbit. Eyes lateral, moderate, in anterior part of head, not visible from below the ventral surface. Teeth on jaws and plate four or five scales between orbit and angle of preopercle, 12 or 13 predorsal scales. An accessory respiratory organ in the form of a thin bony laminae present in a cavity of gill chamber. Both dorsal and anal fin are free from caudal. Pelvic fin more than half length of pectoral fin, pectoral fin plain.

Distribution: Throughout India, Nepal, Pakistan, Bangladesh, Sri Lanka, Malay, China, Thati and Polynesia.

Invertebrates

Insects



In Sangam literature of Tamil history & culture reference was made on "**Mudharporul**,- the interdependence of living and non-living, while *Tholkaapiar* classified 6 biodiversity in which ants and termites were mentioned. The study of insects in India dates back to more than 2000 years and the classic epic Mahabharata recorded Mandavya who was interested in collecting and procuring insects (Patanga) for "Lac". Taxonomic research on Indian insect started when the European traders, missionaries and rulers from the middle of 18th Century and continued until today by the establishment of the Zoological Survey of India, research and educational institutes and universities. Of the 1.7 million of world's known plants and animals species, the insects constitute 55% of named species. Insect fauna of India accounts for 62,000 named species of 92,000 animal species. The Tamil Nadu state shares the credit of one third *ie* 22 % of Indian entomological fauna.

भारत सरकार
GOVERNMENT OF INDIA

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Phone Director : 2400-6893
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Zoological Survey of India
Prani Vigyan Bhavan
M-Block, New Alipore,
Kolkata-700 053

To
His Excellency The Honourable Governor,
Govt. of Tamil Nadu, State of Tamil Nadu
Raj Bhavan, Chennai

30th December 2010

Attn. Deputy Secretary, Raj Bhavan, Chennai

His Excellency,

Thank you very much for giving an opportunity to Zoological Survey of India for preparation of the Booklet on "Fauna of Raj Bhavan" to the people of India. It is highly interesting to inform your Excellency that two species of Spiders collected from Raj Bhavan belong to the families Sparassidae and Oxyopidae, were never been recorded from India. It is the first record to whole of India. His Excellency may kindly permit Zoological Survey of India to conduct further Study on the above mentioned species in details in the interest of Science.

The following are the photographs and description of the species for His Excellency to know:

1. *Sinopoda forcipata* Karsch 1881.

Yellowish-brown Huntsman

Phylum: Arthropoda, Class: Arachnida, Family: Sparassidae, Local name: ....
Size: 3–25 mm. **Field characters**: Sexes alike except little variation in size. Small to large spiders With laterigrade legs and 3 pairs of prominent dark spot on the dorsal side of abdomen. Pale Yellowish-brown Colored body, without distinct pattern. Habitat: from tree bark and Grass, in Leaf- litter. It runs like wolf spiders during the day there on inhabited natural rock fissures and Man-made walls. This species came out at a certain time in the evening to ambush for prey. Always near the same spot other species are reported from caves, though not all of them appear to Be restricted to caves. Male palpa with embolic apophysis, *Carapace*: widest above coxa II to III

2. *Oxyopes quadrifasciatus* Koch 1878

Orange Striped Lynx Spider

Phylum: Arthropoda, **Class**: Arachnida, **Family**: Oxyopidae,

Size: 5-7cm: **Field characters**: Sexually dimorphic. Females are larger. It has black and orange lines (fascia) running the length of its body. It hunts on foliage in the daytime, eating all manner of insects and other. This long legged hunting spider is capable of running very fast and jump on their prey like a cat. They do not make a web but actively hunt their prey. They have two large front eyes besides a smaller pair, two on the side of their head and two large ones looking above and backward giving them an almost 360 degree view.

Thanking you

With respectful regards

K. Venkataraman
Director

Anax guttatus (Burmeister)

Blue-Tailed Green Darner

Order: Odonata, **Family:** AESHNIDAE,

Fauna of Raj Bhavan Tamil Nadu

Description

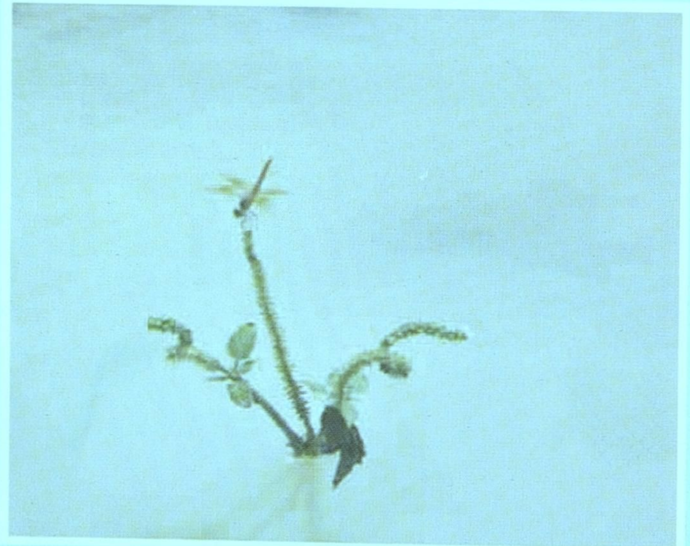
Female: Face golden yellow to bright greenish yellow, eyes blue with yellow and black behind. Thorax pale greenish, legs black, wings transparent, abdomen first and second segment pale green. The hind wings lack the amber patch.

Distribution: Throughout the Oriental region.

Brachythemis contaminata (Fabricius)

Ditch Jewel

Family: LIBELLULIDAE,



Description

Female: Face is yellowish white, eyes pale brown above and bluish grey below. Thorax pale greenish-yellow, with a narrow brown middorsal stripe. A dark brown lateral stripe is also present. Wings transparent. The hind wing tinted with yellow at the base. Wing spot rusty. Abdomen pale olivaceous brown with a black middorsal stripe.

Distribution: Widely distributed in the plains of Oriental region.

Diplacodes trivialis (Rambur)

Ground Skimmer

Family: LIBELLULIDAE

Description

A small greenish yellow or blue with black markings. The abdominal segments 1-7, greenish yellow with middorsal and subdorsal black stripes. Remaining segments black. The 10th segment and anal appendages are completely yellow. Wings transparent, wing spot dark grey to black.

Distribution: Throughout Oriental and Pacific Islands.

Pantala flavescens (Fabricius)

Wandering Glider

Family: LIBELLULIDAE

Fauna of Raj Bhavan Tamil Nadu

Description: Male: Face is bright golden yellow or orange, eyes reddish brown above, and bluish grey on sides and below. Thorax olivaceous or rusty and is coated thickly with fine yellowish hair. On sides, it is pale green or bluish green. Legs black, wings transparent, base of hind wing amber yellow and wing spot is bright reddish brown. Abdomen bright reddish brown and is tinted with brick red dorsally. The segments 8-10 have black spots above.

Distribution: Throughout the tropics.

Cantantops pinguis innotabillis (Walker)

Order: Orthoptera, **FAMILY:** ACRIDIDAE

Fauna of Raj Bhavan Tamil Nadu

Description

A medium size, antennae filiform, shorter than head and pronotum together; basal disc of wing weekly greenish to colour less; lateral lobe of pronotum without pattern; hind femur broad and thick; two pair of brownish black markings dorsally.

Distribution: Throughout India. **Elsewhere:** Afghanistan, Bangladesh, Indo-China, Indonesia, Japan, Malaysia, Myanmar, Maldives Islands, New Guinea, Pakistan, Philippines, Sri Lanka and Thailand.

Therea petiveriana (Linnaeus, 1758)

FAMILY: POLYPHAGIDAE, **Subfamily:** Holocompsinae,
Genus : *Therea* Billberg (1820)

Diagnosis: Head with pronoum black in colour; tegmina black with four pair of large golden yellow spots; legs are black. Body medium size, head with vertex completely coverd by pronotum; interocular space less than the distance between antennal sockets; ocelli distinct; pronotum covered with cilia like hairs, anterior and posterior margin rounded, lateral margin convex; tegmina extended at the end of the abdomen; wings vestigial; supra anal plate hairy, asymmetrical; subgenital plate hairy asymmetrical with a pair of symmetrical styles; hind margin semicircular; anterior margin of front femur without spine.

Distribution: India (Andhra Pradesh, Kerala, Pondicherry, Karnataka and Tamilnadu).

Periplaneta americana (Linnaeus, 1758)

Karappan poochi (Tamil)

FAMILY:BLATTIDAE, **Subfamily:** Blattinae, **Genus :** *Periplaneta* Burmeister (1838)

Diagnosis: Reddish brown in colour. Pronotum with a yellow narrow band at lateral margin. Tegmina uniformly reddish brown in colour. Large in size. Head with vertex exposed; interocular distance narrower than the width of antennal socket. Ocelli small. Pronotum flattened, smooth subelliptical, sides deflexed, wider behind the middle and all angles broadly rounded. Femora and tibiae strongly spined, posterior metatarsus longer than the remaining joints. Subgenital plate symmetrical and divided at the posterior margin. In female sub-genital plate with mesodistal portion with valves.

Distribution: This is cosmopolitan species and one of the most important domestic cockroach pests and thrives in tropical and subtropical climates all over the world.

Neostylopyga rhombifolia (Stoll, 1813)

FAMILY: BLATTIDAE, **Subfamily:** Blattinae

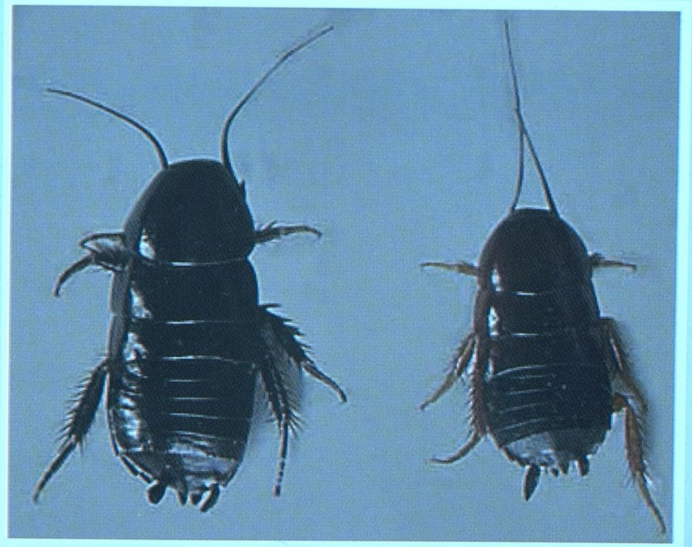
Fauna of Raj Bhavan Tamil Nadu

Diagnosis: Male – Size medim. Vertex little exposed. Pronotum with anterior margin a little convex or entire, posterior margin straight, lateral margin rounded, and maximum width just at the posterior margin. Tegmina reduced. Wings are absent. Postterolateral tergite a little indented. Supra anal plate with deeply notched medially. Subgenital plate compressed with obtuse apex. Style thin and slender. In female, anterior margin of pronotum a little concave medially. Posterior margin with maximum width. Tegmina with posterior margin obtusely rounded. Supra anal plate slightly depressed medially.

Distribution: India (Karnataka, Meghalaya, Andaman and Nicobar Islands, Andhra Pradesh, Bihar, Madhya Pradesh, Orissa, Utter Pradesh and West Bengal).

Pycnoscelus surinamensis (Linnaeus, 1758)

FAMILY: BLABERIDAE, **Subfamily:** Pycnscelinae,

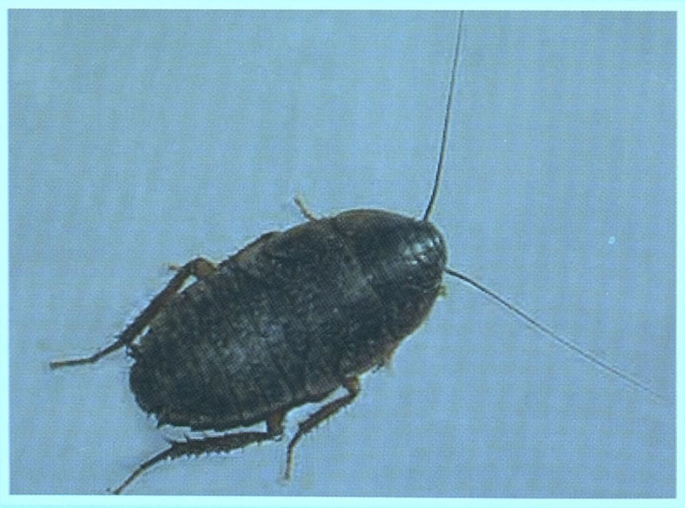


Diagnosis: Pronotum shiny blackish brown with yellowish margin anteriorly; tegmina dark brwn in colour. Medium size, head with vertex exposed, ocelli large, approximate to the eye. Pronotum laterally rounded, posterior margin convex. Tegmina and wings extending scarcely upto the apex of the abdomen; subgenital plate with unequally rounded at apex; antrovental margin of front femur with row of slender piliform spinules and terminates in one large spines.

Distribution: India (West Bengal, Tamilnadu and Karnataka). A fairly well distributed species throughtout Oriental region and also in Surinam (South America).

Trichoblatta sericea (Saussure, 1863)

FAMILY: BLABERIDAE **Subfamily:** Perisphaeriinae,



Diagnosis: Black or reddish black in colour, Head black with a yellow spot at base of each antennae; antennae uniformly yellowish brown; palpi yellow; throax uniformly black; Elytra elongate, basally punctate, apex rounded; Anteroventral margin of front femur with serially arranged small spines. Supra anal plate a little arched posteriorly. Subgenital plate transverse. Abdomen black in colour , eight segmented. This species ovo-viviparous. Body length 15 -30 mm.

Distribution: India (Gujarat, Maharashtra, Bihar, West Bengal, Orissa, Meghalaya, Arunachal Pradesh, Sikkim, Tamilnadu, Karnataka and Kerala). This species so far not recorded other than India.

Blattella germanica (Linnaeus, 1767)

FAMILY: BLATTELLIDAE, **Subfamily:** Blattellinae

Diagnosis: Small in size. Head with vertex exposed. Pronotum transeverse, gradually rounded laterally. Tegmen relatively elongated, the subcosta is shorter than anal field, discoidal vein forked before median point. 2 to7 abdominal tergites with latero caudal portion produced as lobes, 7 and 8 tergites narrowly visible. Supra anal plate semi circular or subtriangular, with lateral margin moderately convergent, weaky convex at the posterior region. Subgenital plate with posterior margin forming a large broad rounded lobe.

Distribution: Widely distributed species in the world.

Leptocentrus sp. (Stal)

Order: Homoptera, **FAMILY:** MEMBRACIDAE,
Local Name: Horned Treehopper

Description: Head, pronotum, and scutellum black; basal two-thirds of scutellum and lateral areas of sternum cretaceously sericeous; abdomen beneath black, legs piceous, tegmina shinging ochraceous, the costal margin, obscurely at base, black; pronotum coarsely punctuate.

Distribution: Ethiopian and Oriental region.

Eusarcocoris sp.

Order: Hemiptera, **FAMILY:** PENTATOMIDAE

Description: Body obovate, moderately broad and somewhat strongly convex beneath. Head deflected, its apex rounded, the central lobe either as long as lateral lobes or slightly prominent. Antennae with the basal joint not reaching or nearly reaching the apex of head. Pronotum anteriorly deflected. Scutellum about as long as its breadth at base, or a little longer, frena not extending beyond its middle.

Distribution: Palaearctic, Ethiopian, Oriental and Australian regions.

Chrysocoris purpureus (Westwood)

Stink Bugs

Family: Pentatomidae,

Description: *Chrysocoris purpureus* is a bluish or purplish green with five spots on pronotum and seven spots in scutellum. These are brilliantly coloured, handsome, and graceful and shield shaped common bugs, usually found in Euphorbiace plants. They have a large scutellum which reaches back to the wing membrane of the wings

Distribution: Throughout India

Ectrychotes dispar (Reuter)

Assassin Bugs

FAMILY: REDUVIIDAE

Description

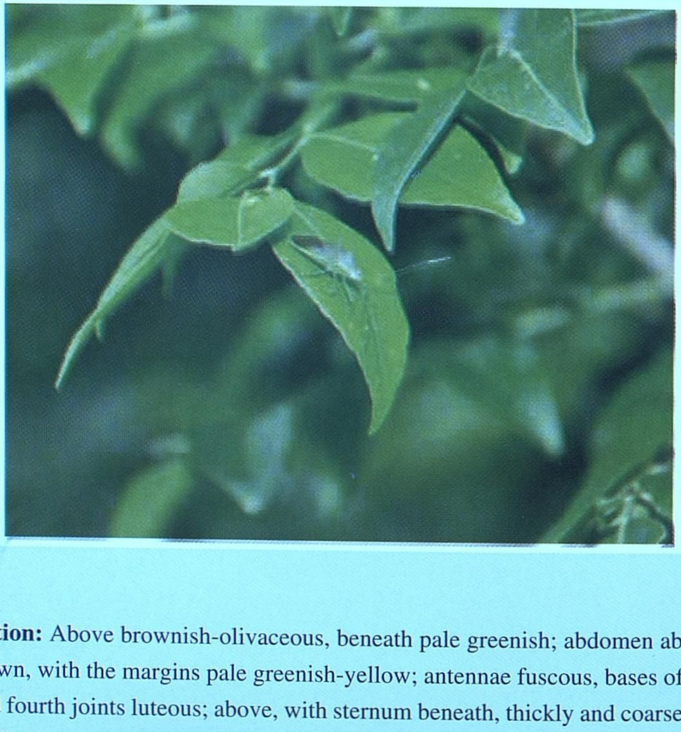
A shining violaceous bug, antennae and hemielytra piceous. The posterior lobe of pronotum, the scutellum, base of clavus and corium, lateral margins of corium connexivum, apices of coxae, trochanters, basal half of posterior femora, bases of tarsi, and abdomen coral red.

Distribution: India: Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra and West Bengal.

Leptocorisa acuta (Thunb)

Rice-Bugs

Family: Coreidae,



Description: Above brownish-olivaceous, beneath pale greenish; abdomen above reddish-brown, with the margins pale greenish-yellow; antennae fuscous, bases of second, third and fourth joints luteous; above, with sternum beneath, thickly and coarsely punctuate; a distinct central carinate line to pronotum.

Distribution: Throughout India. **Elsewhere:** China, Islands of Malayan Archipelago.

Riptortus linearis (Fabricius)

Squash Bugs

Family: Coreidae

Description: Dark cinnamon-brown; pronotum, scutellum, corium, and lateral areas of sternum distinctly punctuate; first, second, and third joints of antennae, fascia at base of head between eyes, central fascia to head beneath, lateral angular spines to pronotum, disk of sternum and abdomen black.

Distribution: India: Karnataka, Madhya Pradesh, Maharashtra, Sikkim, Tamil Nadu and West Bengal.

Coccinella transversalis (Fabricius)

Transverse Ladybird

Order: Coleoptera, **FAMILY:** COCCINELLIDAE

Description: Elytra testaceous yellow, each elytra with a triangular black marking on the sub humeral area, with a wavy, black, postmedian band confluent with the black sutural margin, a sub-quadrate black spot at three-fourths the external margin, further two common spots, one immediately behind the scutellum and the other before the apex, present on the suture.

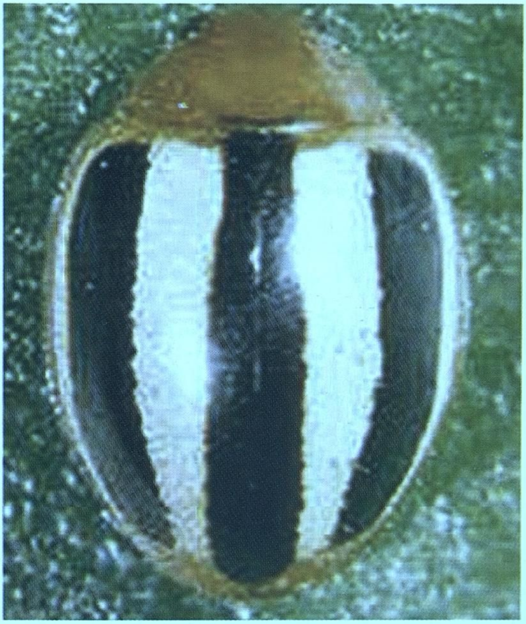
Distribution: India: Tripura, Madhya Pradesh, Meghalaya, Kerala, Goa, West Bengal, Andaman & Nicobar Islands. **Elsewhere:** Australia, Bangladesh, Indochina, Indonesia, Thailand, Japan, Nepal, New Zealand and Sri Lanka.

Brumoides suturalis (Fabricius)

Three-striped lady Beetle

FAMILY: COCCINELLIDAE

Fauna of Raj Bhavan Tamil Nadu



Description: Adult beetle is oval in shape, about 4.0 mm long and 2.6 mm broad across the mid elytra. The head is brown with a pair of prominent black eyes. The eyes are slight covered by pronotum when the head is retracted. The elytra are brownish yellow except at their apical, basal and lateral margins. There is a median longitudinal black stripe at the apex of the elytra. Besides, there is a lateral longitudinal black stripe on each elytra starting from the humoral angle.

Distribution: India: Goa, Karnataka, Maharashtra, Manipur, Punjab, Tamil Nadu and Uttar Pradesh. **Elsewhere:** Bangladesh, Bhutan, Nepal, Pakistan and Sri Lank.

Cheilomenes sexmaculata (Fabricius)

Six-Spotted Zigzag ladybird

Family : COCCINELLIDAE

Fauna of Raj Bhavan Tamil Nadu

Description: Body outline broadly oval to subrounded, dorsum moderately convex and shiny. Ground colour orange, light red, yellow or pinkish. Head with a black marking in the posterior half; pronotum with a T-shaped median marking connected to a black band along posterior margin; elytra with six black maculae including two zigzag lines and a posterior block spot, sutural line with a moderately broad black stripe. Ventral side uniformily yellow. Antennae short and compact; Prosternal process with a pair of subparallel carinae reaching up to middle.

Distribution: Throughout India. **Elsewhere:** Australia, Bangladesh, Bhutan, China, Indonesia, Iran, Japan, Malaysia, Myanmar, Pakistan, Philippines, Sri Lanka and Vietnam.

Musca (Musca) domestica (Linnaeus)

Housefly

Order: Diptera, **FAMILY:** MUSCIDAE

Fauna of Raj Bhavan Tamil Nadu

Description : Propleuron hairy in the depression between humeral callus and propleural bristles; ventrobasal scale setulose; suprasquamal ridge bare; fore tibia without a submedian pv bristle; thorax with 4 black vitae; all post dc strong.

Distribution: Cosmopolitan throughout world.

Papilio demoleus demoleus (Linnaeus)

Lime Butterfly

Order: Lepidoptera, **Family:** Papilionidae,

Fauna of Raj Bhavan Tamil Nadu

Description: Male and female: The head, thorax and abdomen above, black covered with yellow scales, below yellow with a darker yellow stripe margined with black on sides of abdomen. Upper side black, forewing with base thickly speckled with yellow scales, two yellow spots in cell and a curved spots at its apex. A transverse series of irregular cream-yellow spots much varying in size from interspace 1a to 8, no spot in interspace5, a post-discal series of same coloured spots, small, and a terminal series of much smaller spots. The black ground colour of the terminal half covered with yellowish scales. Hind wing with base and dorsal margin speckled with yellow scales, a broad yellow medial band, a post-discal series of spots and a terminal series of smaller yellow spots. There are one or more cream-yellow spots and black ground colour is covered with yellowish scale beyond the cell region. Under side, duller, the marking paler and larger.

Distribution: Throughout India. **Elsewhere**: Afghanistan, Bangladesh, China, Indonesia, Iran, Iraq, Malaysia, Myanmar, New Guinea, Pakistan, New Guinea, Philippines, Taiwan, Thailand, Taiwan and Sri Lank.

Papilo polytes (Linnaeus)

Common Mormon

FAMILY: PAPILIONIDAE

Fauna of Raj Bhavan Tamil Nadu

Description: Male and female are polymorphic. Male with upperside black. Forewing with cell and apical portion dusted with pale yellow scales. Hindwing with a transverseseries of elongate white discal spots in all the interspace. Underside similar but with an incomplete series of dirty white lunules beyond the discal band, and a series of small marginal spots, the tornal spot separated from the blue scaling by a dark yellowish-red line. Female: The adult female is *romulus* form forewing with a short subapical and a larger discal whitish oblique band and hindwing with all the markings are replaced by dark red.

Distribution: Throughout India. **Elsewhere**: Bangladesh, Bhutan, China, Indonesia, Japan, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Thailand and Sri Lanka.

Catopsilia pomona (Fabricius)

Lemon Emigrant

Family: Pieridae,

Fauna of Raj Bhavan Tamil Nadu

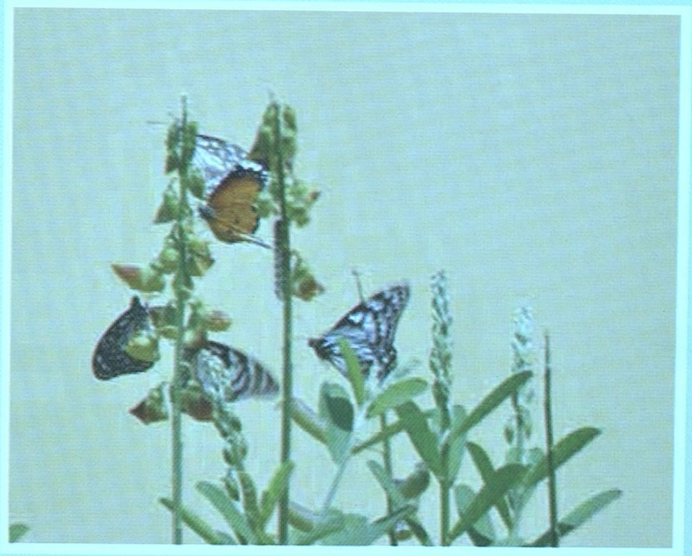
Description: Adult male resembles *C. crocale*. Upper side white with outer area yellow. Fore wing with the costal margin black at the apex and outer narrow, dark marginal spotted border. Underside greenish white. Both wings have a disco-cellular, reddish brown-ringed silvery spot (two in female). Fore wing with a post discal series of small, reddish brown spots and marginal dots. Antennae red. Upper side of female sulphur yellow to white. Fore wing markings as in male but the outer margin dentate on the innerside. An anterior post-discal series of blackish brown spots and a prominent disco-cellular rounded spot. Hind wing with small reddish brown marginal vein spot. Under side variable colour reddish brown, brownish yellow, deep yellow to greenish yellow or white.

Distribution: Throughout India. **Elsewhere:** The entire Oriental region, New Guinea, parts of Australia and the Pacific Islands.

Anosia chrysippus (Linnaeus)

Plain Tiger

FAMILY: NYMPHALIDAE



Description: Male and Female: Upperside: forewing tawny-red, paler over the dorsal area, costa and apex black, the latter crossed by a white, oblique bar with two white spots below its lower end. One or two white spots above and beyond the apex of cell and a series of terminal white spots in varying size. Hindwing paler termen narrowly black with a series of white spots. Underside similar but paler.

Distribution: Throughout India. **Elsewhere**: Afghanistan, Africa, Australia Bangladesh, China, Fiji, Indonesia, Iran, Japan, Madagascar, Malaysia, Mauritius, Myanmar, Nepal, New Guinea, Pakistan, Philippines, Thailand, Turkey, Singapore, Sri Lanka and Syria.

Tellervo limniace leopardus (Butler)

Blue Tiger

Family: Nymphalidae

Description: Male and Female: Head and thorax spotted and streaked with white, abdomen yellow, below spotted with white. Upper side black with bluish-white spots and streaks. Under side: basal two-thirds of the forewing dusky-black, the apex and hind wing olive-brown, the spots and streaks as on upperside.

Distribution: Throughout India. **Elsewhere:** Bangladesh, China, Indonesia, Myanmar, Pakistan, Thailand and Sri Lanka.

Tellervo septentrionis dravidarum (Fruhstorfer)

Dark Blue Tiger

Family: Nymphalidae

Description: Upper side black, with pale blue markings. Similar to the Blue Tiger, *T. limniace leopardus* but with narrower and darker markings. Hind wing with a characteristic wish-bone marking in the cell, formed by 2 white streaks joined at the base. Under side darker.

Distribution: Throughout India. **Elsewhere:** Afghanistan, Australia, Bangladesh, Bhutan, China, Indonesia, Myanmar, New Guinea, Pacific Islands, Pakistan, Thailand, Taiwan and Sri Lanka.

Euploea core core (Cramer)

Common Crow

FAMILY: NYMPHALIDAE

Description: Adult: Upperside glossy brown with sub-terminal and terminal white spots either equal or decreasing in size. On the forewing the former are curved inwards along the costa, the latter series smaller and not reaching the apex.Forewing much darker than hindwing with short band. Marginal spots on hindwing more prominent. Underside light brown with markings as on upperside.

Distribution: Throughout India. **Elsewhere:** Australia, Bangladesh, China, Indonesia, Myanmar, Pakistan, Thailand and Sri Lanka.

Junonia iphita (Cramer)

Chocolate Pansy

FAMILY: NYMPHALIDAE

Description: Upper side dark olive-brown with indistinct dark brown bands. The basal area of both wings more greenish. Fore wing with one or two minute ocelli and hind wing with an indistinct row of five dark brown ocelli. Apex of fore wing and tornus of hindwing slightly produced and termen of forewing concave. Under side dark brown with wavy lines and less distinct ocelli.

Distribution: Throughout India. **Elsewhere:** Entire Oriental region.

Junonia lemonias lemonias (Linnaeus)

Lemon Pansy

FAMILY: NYMPHALIDAE

Fauna of Raj Bhavan Tamil Nadu

Description: Upperside dark brown or grayish greyish brown, forewing with black lines, yellowish brown spots and two red ocelli, the lower one larger and prominent. Hindwing with a large apical red ocellus, enclosing two minute white spots and smaller lower black spot. Underside yellowish brown in male and pinkish brown in female with several wavy lines and in the forewing the lower ocellus is alone visible mostly

Distribution: Throughout India. **Elsewhere:** Bangladesh, Bhutan, China, Hongkong, Indonesia, Malaysia, Myanmar, Pakistan, Philippines, Taiwan and Sri Lanka.

Acraea violae (Fabricius)

Tawny Coster

FAMILY: NYMPHALIDAE

Description: Male brick red, fore wing with black apex and prominent black spots and streaks; hind wing with a marginal black border having a row of pale yellow spots. Female pale coloured with broad markings and marginal bands. Under side male glossy red. Hind wing with a cluster of five black-ringed white spots in the base and the marginal band with larger yellowish white spots and inner border. Female dull coloured, hind wing with large spots in the marginal band.

Distribution: Throughout India. **Elsewhere:** Sri Lanka.

Eurema hecabe fimbriata (Wallace)

The Common Grass Yellow

FAMILY: PIERIDAE

Description: Head with antennae grayish yellow, club black; head, thorax and abdomen yellow, shaded with fuscous; under side of palpi, thorax and abdomen yellowish white. Male and female: Upper side: wings bright yellow. Wet season form: Forewing with black broad border and has an excavated between veins 2 and 4. Under side: Paler than upperside. Forewing with a prominent reddish-brown patch. Hind wing with a slightly curved sub-basal series of three spots. Both wings with minute reddish brown coastal and outer marginal terminal specks at vein ends.

Distribution: Throughout India.

Junonia almana almana (Linnaeus)

The Peacock Pancy

Family: Nymphalidae

Description: Male and Female: Upper side: Forewing orange-yellow, the cell and the costal area to near the apex of wing crossed by four short dark bands, a pale- centered ocellus with the two black rings and generally two pre-apical ocelli. Hind wing with three border lines as on forewing but well defined, a very large pale yellow black-ringed ocellus spreading over interspaces 4 to 7, the centre inwardly reddish-yellow with two white spots, outwardly black. In some specimens a small black-ringed ocellus in inter space 2 is present. Under side: Leaf-like and pale yellowish-brown. In wet season form, the ocelli are more prominent on hind wing and margins of wings smooth. In dry season form, the apex in forewing is prominently toothed and without ocelli, hind wing is produced into narrow tail.

Distribution: Throughout India.

Phalanta phalantha phalantha (Drury)

The Common Leopard

Family: Nymphalidae

Description: Diagnostic Characters: Male and female: Upperside: Wings bright yellowish brown with row of black spots and wavy lines. Forewing with the apical half of the costal margin having four narrow waved fasciae, a straight discal series of six spots placed between the nervules, followed by a similar series of four spots, a sub-marginal series of black spots from apex to above vein 2, the spot below vein 2 rounded and largest; inner marginal area without any spot. Hind wing with some transversely waved linear fasciae on basal area; a discal series of four rounded spots; two waved sub-marginal fasciae with a marginal series of elongate spots. Under side: Similar as above but most of dark markings very paler and glossy and the dry season form has a more prominent purple gloss on the upper side. The upper side of this species closely resembles that of an *Argyreus*.

Distribution: The subspecies occurs throughout the year in India and ascends to about 8,000 feet in Himalayas. Also occurs in Srilanka, Pakistan and Myanmar. Uttarakhand: Almora, Dehra Dun, Haridwar, Rudra Prayag, Chamoli, Uttarkashi,Nainital, Pauri, Udham Singh Nagar, Pithoragarh and Tehri Districts

Hypolimnas bolina (Linnaeus)

The Great Eggfly

Family: Nymphalidae

Fauna of Raj Bhavan Tamil Nadu

Description: Male: Upperside: Wings very dark indigo blue. Forewing with a large elongated macular white spot, margined with bright bluish from upper disco-celluar to vein 3, with a row of small white ocelli from apex to the tornus of hind wing. Hind wing with a broad medial whitish fascia. Under side: Dark oliveaceous brown. Forewing with the white markings as above, but with the large macular spot almost extending to costa, not prominently margined with bluish, and followed by a small pale spot beneath the second median nervule. Hind wing with a small sub-costal pale bluish spot followed by a paler medial fascia ending at the inner margin, sub-marginal area pale grayish, with some dots.

Female: Upper side: Dark brown with outer discal row of small, pale yellow or whitish spots on both wings. Forewing with concave margin, having more or less obscure marginal and inner terminal markings. Two blue spots in wet season form and one in dry season form. Hindwing with browad pale yellow or white termen, bearing a dark wavy line or brand. Under side: brown with bands of white spots and patches. The Female of this species is a good mimic of the Common Indian Crow (*Eupolea core*)

Distribution: Throughout India.

Utetheisa pulchella (Linnaeus)

The Tigermoth

Family: Arctiidae

Fauna of Raj Bhavan Tamil Nadu

Description: Wingspan: Uo 3.5cm. Forewings: White; dotedred, black. Hind Wings: White; boardered black. Body: Stout; White. Nocturnal. Attracted to light.

Distribution and Status: Gardens, grasslands, scrub. Common.

Delta pyriforme (Fabricius)

Potter wasp

Order Hymenoptera ; Family Vespidae ; Subfamily Eumeninae ;

Description: Head yellow, a broad black band between the eyes on the vertex; occiput black; antenna reddish-brown; pronotum entirely and mesoscutum anteriorly yellow, the later posteriorly black; scutellum and postscutellum reddish-brown; propleuron black; mesopleuron, metapleuron and legs reddish-brown variegated with black; propodeum reddish-brown with a narrow medial vertical black line; the sutures between the scutellum, postscutellum and propodeum black; petiole and basal third of the second gastral segment reddish-brown, the former black at base and with a subapicalblack band, the middle of the later black, its posterior third and the remaining abdominal segments yellow. Wings deep flavohyaline. Frons and vertex of the head and thorax with close shallow punctures, petiole smooth, the rest of the abdomen with the surface finely longitudinally aciculate; clypeus pyriforme, its apex truncate; petiole broadening towards the apex and slightly flattened.

Distribution: India : Arunachal Pradesh, Gujarat, Karnataka, Kerala, Orissa, Rajasthan, Sikkim, Tamil Nadu, West Bengal. Elsewhere Bhutan, Cambodia, China, Hawaii, Hong Kong, Indonesia, Malaysia, Moluccas, Myanmar, Nepal, New Guinea, Sri Lanka, Taiwan, Thailand, Vietnam.

Thelyphonus sepiaris (Butler 1873)

Whip Scorpion

Class: Arachnida, **Uropygi;** Family Thelyphonidae

Fauna of Raj Bhavan Tamil Nadu

Description: Members of the genus *Thelyphonus* exhibit modified tarasal segment of first leg in the female, patellar apophysis of pedipalp of male is unmodified, but in some species longer than in female, abdominal sternites II & III are modified; two ommatoids are present; keel present; poster abdominal tergites are divided. *Thelyphonus sepiaris* differs from its closely related species *Thelyphonus schnehageni* known from Burma by in having the tibia of the arm narrower instead of broader than it is short.

Synonymy: *T. sepiaris* is a variable species showing broad differences in its immature stages and males and females. Hence synonmy of this includes *T. indicus* and *P. muricola*

Distribution: The species has been recorded from the tropical deciduous forest types and is widely distributed in Peninsular India and Sri Lanka.

Oxyopes quadrifasciatus Koch,1878

Orange Striped Lynx Spider

Phylum: Arthropoda, **Class**: Arachnida, **Family:** Oxyopidae

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Size: 5-7cm: **Field characters**: Sexually dimorphic. Females are larger. It has black and orange lines (fascia) running the length of its body. It hunts on foliage in the daytime, eating all manner of insects and other. This long legged hunting spider is capable of running very fast and jump on their prey like a cat. They do not make a web but actively hunt their prey. They have two large front eyes besides a smaller pair, two on the side of their head and two large ones looking above and backward giving them an almost 360 degree view.

Sinopoda forcipata Karsch 1881.

Yellowish-brown Huntsman

Phylum: Arthropoda, Class: Arachnida, Family: Sparassidae

Size: 3–25 mm. **Field characters**: Sexes alike except little variation in size. Small to large spiders With laterigrade legs and 3 pares of prominent dark spot on the dorsal side of abdomen. Pale Yellowish-brown Colored body, without distinct pattern. Habitat: from tree bark and Grass, in Leaf- litter. It runs like wolf spiders during the day there on inhabited natural rock fissures and Man-made walls. This species came out at a certain time in the evening to ambush for prey Always near the same spot other species are reported from caves, though not all of them appear to Be restricted to caves. Male palps with embolic apophysis. *Carapace:* widest above coxa II to III

Mollusca

Molluscs are very ancient organisms and form the second largest group of animal after insects in the whole animal kingdom. They are bilateral coelomate animals, often secondarily altered to asymmetrical condition, without or rarely with evident of metamerism, soft bodies animals, covered with shell of one or more than one species secreted by the mantle; neutral body wall modified to a muscular locomotory organ; pharynx commonly provided with toothed band the radula and with gills, open circulating stem and meta nephridia. They are the most definitely characterized group in the animal kingdom, having atleast two features, mantle and radula not found elsewhere. They are highly adaptive and occupy all possible habitats except aerial. Originally marine, they have spread in to freshwater and form there into the land, where they now almost equal the marine forms in species number. They are most part benthonic, but many have pelagic also. Primarily inhabitatnts of the intertidal and littoral zones of the ocean mollusks descend to great depths. The mollusks are of great diversity with 5072 species that account for about 8% of the world fauna. At the family level, 62.8% of the families known from the world are represented in India. The richness of the species is due to the diverse ecosystems and habitats. 575 species of freshwater and terrestrial molluscan species are endemic to the country. Among the mollusks, several species are of ornamental value and support a viable shell-craft industry.

Cryptozona ligulata (Ferrussac)

Common Land Pulmonates

Family: Ariophantidae

Description: Shell depressedly globose, thick, narrowly perforate, whitish with brown bands running along the suture and also above the periphery; finely sculptured with close, oblique striae, decussated by impressed parallel lines; spire conoidly raised, apex obtuse; whorls $6\text{-}6^{1}/_{2}$, little convex, the last subangulate at the periphery, rounded below, slightly descending in front; aperture oblique, lunate, peristome very slightly thickened, columellar margin reflected, basal margin nearly horizontal. Distinct for its brown bands, shows variations in the height of shell.

Distribution: India: Andhra Pradesh, Jharkhand, Orissa, Tamil Nadu, and West Bengal.

Cryptozona bistrialis (Beck)

Common Land Pulmonates

Family: Ariophantidae

Fauna of Raj Bhavan Tamil Nadu

Description: Shell subglobosely depressed, perforate, thin, pale whitish to brownish with two narrow chocolate bands around, area between the two bands white, sometimes with a single band, rarely without; decussately sculptured both above and below; spire low; whorls $4^{1}/_{2}$, very little convex, the last large, rounded above and below; aperture oblique, widely lunate, peristome thin, columellar margin slightly reflected. Distinct for its two brown encircling lines.

Distribution: India: Andhra Pradesh, Orissa, Tamil Nadu. **Elsewhere:** Sri Lanka.

Achatina (Lissachatina) fulica fulica (Bowdich)

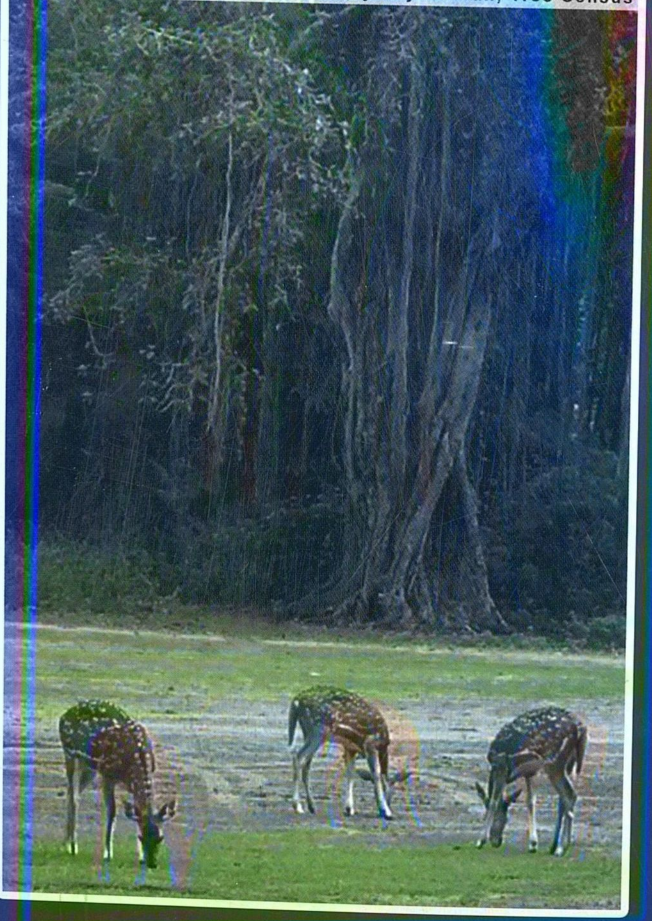
Giant African Land Snail

Family: Achatinidae

Description: Shell large to very large, ovately conoid, imperforate, thick, pale yellowish with brown streaks and flames, irregularly vertically arranged; rather coarsely sculptured with vertical striae decussated by fine spirals (absent on last whorl); whorls 8, convex, last whorl inflated and large equaling half of total length; aperture ovately elliptical, white to bluish violet inside, columella broad, slightly curved and abruptly truncate below; peristome thin and sharp, margins joined by a thick callus.

Distribution: Throughout India except north-west region. **Elsewhere:** Malagasy, Mauritius, Scychelles, Singapore, Zanzibar.

Remark: Though this family as such is endemic to Africa, the species *Achatina fulica fulica* (Bowdich), subsequent to its introduction by man has naturalized and established itself in several tropical countries outside Africa, including India. This species has also established as the pest of horticultural crops in Andamans and some other regions in India.

The prime occupant is spotted deer. Black buck is also found though few in numbers. Jackals, bonnet macaques, common mongoose, squirrels, are the other wild fauna frequently seen in the estate. Jungle cats, pangolins, Toddy cats have also been recorded but are rarely sighted. The Raj bhavan Estate hosts a cozy atmosphere, providing ambience for unhindered and free movement for spotted deers and black bucks. It is interesting to note that spotted deers are not native and are said to have been introduced by Lord Elphinstone. Similarly, albino(white) black bucks occasionally seen here were reportedly introduced by the Maharaja of Bhavnagar.

- Guindy Raj Bhavan, Tree Census